Hour Angle
End

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
				DAVID DUNLAP OBSERVATORY
				74" LOGBOOK
				VOL. 7
				PLATE NOS. 4743 - 5494
				JULY 1939 - MAR 1940

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Date Wednesday July 26-27 1939 T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle Ind
4743	HD 172187	18 33.7	43 08	I-12	Ac	.010	19.9 27.3	8 45	9 45	0516

Time T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Pointer 2/0 REMARKS
51	0 51 E	43 04	2-1	640 A5	1-2-1 Binary, thick clouds 9:40 before Begging. Thick thereafter.

Date Thursday, July 27-28, 1939 H **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4744	HD 172187	18 33.7	+43 08	I-12	Astra II	Set 010	22.8 29.4	21 44	22 34 1	1 00
4745	179094	19 06.1	+52 16	"	"	"	22.8 29.4	22 37	23 17 2	0 10 W
4746	187748	19 46.5	+59 10	"	"	"	22.7 29.3	23 45	00 55 3	
4747	206155	21 35.1	+08 44	"	"	"	22.9 29.4	00 59	02 29 4	0 54 W
4748	207978	21 48.0	+28 20	"	"	"	22.9 29.3	02 32	03 20 1	1 32 W
4749	214558	22 38.9	+44 40	"	"	"	22.8 29.3	03 23	04 29 2	1 55 W

Friday 1939 July 28-29 Bs

Cloudy at start. Clearing at 22h; opened up. Heavy black clouds from west 23h; closed.

Saturday 1939 July 29-30 H-Bs About 15 visitors — H

Cloudy all night with frequent drizzles.

4749 E_1 (not numbered) From test of Schmidt Camera Y-H-L Portrait film, 1/4 filter at 4°

4749 F_2 From Test 1-12 Astra II

Clouds from dark. Slowly clearing, but hazy

Many visitors

Printer set 22.4

Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
0 00	+43 08	1	6.40	A5	1-2-1 Binary - Gen. Proj. Haze
0 10W	+52 19	2	6.93	K0	1-2-1 B.S.
	+59 14	2	7.22	G0	1-2-1 K.S.A. 17 Clouded over during setting 23^{18} – 28^{44}. Haze thruout
0 54W	+08 53	2-1	6.8-7.5	A0	1-2-1 Binary Haze
1 32W	+28 28	2	6.04	F5	1-2-1 KSA 66 Clouds 2^{40} – 2^{50}; haze thruout
1 55W	+44 50	3-4	6.95	F8	1-2-1 KSA 42

		MC	SC	SW	MT	ST
July 28	10	$-1^m 35^s.1$	$-1^m 45^s.0$	$+39^s.4$	$-1^m 31^s.1$	$+0^m.5$

Cloudy, 00^h; Hazy & mostly cloudy, 01^{30}. Thunderstorm, 02^{45}

July 29	10	-1 34.3	-1 45.9	+39.3	-1^m 30.0	$+0^m.5$

showed 14" to 2 but no others stayed

July 31	10	-1 30.4	-1 47.1	+39.1	$-12^s.7$	$+0^m.6$

Stopped; Reset.

outside the brae Tilt set to 20^{15}

setting	From
1	26.05
6	24.25
9	26.15

cf 9^s, 13^s] 26.28 about right Not set back

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Date Monday July 31 - Aug. 1/39 -L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
4750	H.D. 172187	18 33.7	43 08	I-12½	Astra II	Set .010	Below 27.4	20 55	21 50	3	0 28 E
4751	" 174881	18 47.7	28 39	"	"	"	27.4	21 55	22 55	4	0 23 W
4752	" 182440	19 19.6	57 33	"	"	"	27.4	23 01	00 13	1	1 10 W
4753	" 206155	21 35.1	08 44	"	"	"	27.4	00 19	01 39	2	0 20 W
4754	" 204231	21 22.1	57 39	"	"	"	27.4	01 49	03 29	3	2 29 W
4755	" 218525	23 03.6	44 01	"	"	"	27.4	03 34	04 24	4	1 37 W

Pointer set at -21.05

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp	REMARKS
0 28 E	43 08	1-2	6.40 A_5	1-2-1	Haze and light clouds, hesitated to start.
0 23 W	28 43	1-2	7.43 K_0	1-2-1	Surprise! cleared off shortly after start and stayed clear
1 10 W	57 38	1-2	7.57 K_2	1-2-1	
0 20 W	08 52	1	6.8 – 7.5 A_0	1-2-1	
2 24 W	57 47	1	7.56 F_8	1-2-1	haze, light clouds.
1 37 W	44 12	1	6.36 A_0	1-2-1	

	MC	SC	SW	MT	ST
Aug. 10	−1m 36.s7	−1m 47.s8	+36.s8	−14.s5	+0.m6

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Date Sunday Sept 1-2 1929 M Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle and
4756	HD 165910	18 32	-13 03	7 - 12	[illegible]	.010	30°	20 35	21 47 1	
4757	184613	19 01	31 0[illegible]	—	—	—	26°	21 50	22 58 2	
4758	[illegible]	20 018	-27 06	—	[illegible]	.060	26°	23 20	— 3	
								—	27 [illegible]	
4759	[illegible]	—	—	—	[illegible]	—	[illegible]	2 [illegible] 36	— 4	
								—	[illegible] 37 [illegible]	
								[illegible]		
4760	HD 178933	20 [illegible]	43 [illegible]	—	[illegible]	.010	26°	[illegible] 11	1 18 1	
4761	185851	7[illegible] 30	49 02	—	—	—	26°	1 14	3 26 2	
4762	3924	8[illegible] 32	3[illegible] 12	—	—	—	26°	2 31	4 11 3	

Thursday Aug was rainy cloudy cloudy with haze
Wednesday [illegible] Delayed spectrum check Haze Thick clouds 11 to - 13°

Points of 205

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
0 03W	13 02	0	646 A0	3-1 lightning on south horizon
0 56W	31 07	0	673 [illegible]	1-2-
	0	20sec	[illegible]	Raised [illegible]
	1	10		
	2	40		Points outside circle
	3	20		
	4	10		Set 2 in
	5	5		
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	15		
	[illegible]	120	[illegible]	
	[illegible]	[illegible]		
	[illegible]	[illegible]		
	[illegible]	[illegible]		Cyl Rem
[illegible] 46W	44 06	2	652 [illegible]	1-2-1
[illegible] 33W	43 13	2	751 [illegible]	1-2-1 [illegible]
[illegible] E	-5 23	2	611 B1	1-2-1

	MC	SC	SW	MT	ST
Avg 2 10	-1m 41.9s	-1m 48.3s	+35.3s 7	-20.5s	+0.1m 8

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Date Fri 4 1919 August 4-5 Julian Day 9410

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
3763	HD 172, 167	18 33.7	-43° 08	1-12	Astra II	30"	17.5 25.5	20 34	21 40	
4764	" 179, 930	19 06.1	+52° 16				17.2 25.3	21 [illegible]	[illegible]	
4765	" 190, 203	19 [illegible]	+14° 42				17.4 25.4	22 [illegible]	[illegible]	
4766	" 207, 928	21 48.0	+38° 20				17.6 [illegible]	01 [illegible]	[illegible]	
4767	" 215, 343	22 43.7	+38° 52			40"	17.4 25.4	02 [illegible]	[illegible]	
4768	" 12, 745	02 16.8	-34° 26				17.5 [illegible]	03 32	[illegible]	

Pointing of 1946

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
0 37 E	+43°02	1-2-1	6.4: A5	Binary
0 12 E	+52°22	2	6.0: K0	1-2-1 ISC
2 03 W	+14°50	1-2	7.1: F8p	1-2- {Left; and toward end in twilight Hekes; image unsteady. Low wind mo
1 [illegible] W	+28°24	1-2	6.0: F5	1-2-1 KSA 66
1 [illegible] W	+37°08	1-2	7.0: K0	1-2-1 BSC Galvo bearing stopped when switched off + on
1 38 E	+40°15	2	6.6: G5	1-2-1 BSC [Sky too poor for fast *; suggested]

	MC	SC	SW	MT	ST
Aug 5 10	-1m 34.2	-1m 50.3	+38.7	-22.0	+00m.8 ~~+01.3~~

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Date Saturday Oct 5-6 1929 M-P.S. Julian Day 9-281

C 5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Filt	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
							Below			
4769	HD 198480	20 11 5	42 35	I - 12	Cramer II	.010	25°5	22 51	23 57 2	
4770	2114 24	22 12 2	29 35	—	—	—	25 4	23 54	01 34 3	
4771	[illegible]	21 11 3	41° 57	[illegible]	[illegible]	[illegible]	25 1	01:39	01 43 2	
4772	[illegible] 5371	20 32 2	63° 11	[illegible]	[illegible]	[illegible]	25 6	[illegible]	04 11 1	

Pointed N S

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
				about 150 Titers. Found M-13 M-57 with 7", 9" & found Pars with 4".
1 44 W	42 42	3-2	7.21 B8	1-2-1
1:00	29 45	2-1	7.54 B8	1-2-1
2 LE	+42° 03	1	6.77 B9	1-2-1 KSA 43
30 W	+63°24	2-1	7.5 B2	1-2-1 8 N [illegible] ✓

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Date Sunday Aug 6-7 1910 L. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4775	HD 164280	17 55.2	36 17	I-12½	Seed 27 II	Set .010	Below 270	20 30	21 04	2 E
4776	" 176466	18 65.3	32 59	"	"	"	269	21 09	21 54	3
4777	" 177435	19 00.3	27 10	"	"	"	268	21 59	23 05	4
4778	" 190867	20 02.0	12 39	"	"	"	268	23 11	00 11	1
4779	" 201849	21 07.2	17 00	"	"	"	268	00 35	01 15	2
4780	" 219699	23 12.6	10 49	"	"	"	268	01 19	02 30	3
4781	1632	00 16.5	32 21	"	"	"	268	02 43	04 31	4

Pointed at E07

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
0 09 E	36 16	3	6.95 A0	1-2-1	
0 19 E	33 00	3	6.91 A2	1-2-1	
0 47 W	27 13	3	7.03 B5	1-2-1	
1 11 W	12 43	3-2	7.51 F2	1-2-1	
1 00 W	27 16	3 2	7.06 A0	1-2-1	
1 09 W	30 40	3-2	7.44 F0	1-2-1	
2 01 W	38 53	3-2	7.15 F5	1-2-1	Light clouds to the west of zenith.

19

Date Monday August 7-8, 1939 14 **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4780	HD 188074	19 48.3	+47 09	I-12	Ast. II	2mm 0.10	18.6 26.2	23 36	0 20	1
4781	205924	21 33.5	+05 19	"	"	"	26.0	0 25 ↑ all run 00	1 00 35	"
	Tuesday, 1939 Aug 8-9 13h									
	Steady rain 20h - 01h			Th.k	01[30]	Partly	cleaning	with stars		SW wind
	Wednesday August 9-10 H-L									
	Changed to daylight			From 12" at 26.23						
	From 7h 0m 0s			Plate marked 1 2 3						0
4	Hartmann			2.0	stuck the time 6[s] 4[s]					
5	"			2.5						
6	"			2.0	0.002 brass shim under slit [illegible]					
7	"			1.8	"					
	Refrack			1-12		From test	26.24			From

Clouds afternoon + early evening. Partly clearing around 21[h] but filling in again. Gradually clearing 23[h] on. Still foggy at start. Cloud + light, wind down.

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Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
1[h] 17[m] W	+47 13	1	652 FO	1-2-1 KSA 39. Haze. Cloud 22[h]57[m]-0[h]9[m]+
0[h] 14[m] W	+05 29	1	603 FO	1- BE. Clouds little East. Thick.

		MC	SC	SW	MT	S.T
Aug. 8	10	-1 31·4	-1 42·2	+44·8	-29[s]·0	-0[m]·8
					Reset.	

02[h]15[m] Mostly thick again, wind unchanged. 02[h]45[m].

Set 8 (at 30) feet; focus finished between 3.0 + 3.5, nearer 3.5

worst (coffee, orbital) ring in which focus will

Tilt worst, think she will

-ch.

03

Long: set back to 21[h]20[m]-26[m]21[s] left limb (next set back)

21

Date Wednesday 1933 Aug 9-10 Bs Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
4782	+0 176,466	18·55·3	+32°59	1 = 12	Astra II	·010	Prism 25·2	21 [illegible]	[illegible]	3	
4783	[illegible]	19·59·7	+17° 26	"	"	"	25·3	[illegible]	[illegible]	4	
4784	21,251	23 57·7	+45°19	"	"	"	25·2	00·96	[illegible]	1	
4785	(1846)	00 12.6	+28°35	"	"	"	25·1	01 [illegible]	01·44	2	

Delayed opening 3.0 for clouds + high wind
Pointer at 19.6. Focus set at 26.21

Time T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	1 [illegible] W	+33°02	1	6.91	A 2	1-2-1	KSA 63 Light clouds round end
	1 [illegible] W	+[illegible]°13	1+	7.27	F 8	1-2-1	SE
	1 [illegible] W	+[illegible]°32	1	7.57	F 8	1-2-1	42 Wobbly star!
	[illegible]	+59°06	1+	6.97	H 3	1-2	Binary, [illegible] Diffraction rings very broad & fuzzy, bands of red spreading rapidly from centre

		M.C.	S.C.	SW	H.T.	S.T.
		m s	m s		°	m
Aug 9	10	-1 42.2	-1 53.0	+34.1	-31.0	-0.8

		MC	SC	SW	HT	ST
		m s	m s		°	m
Aug 10	10	-1 42.9	-1 53.7	+31.1	-33.0	-0.7

23

Date Thursday August 10-11 1939 H Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
4786	HD 172183	18 33.7	+43 08	5-2	40 I	510	24.1	20 12.	20 52	3	
4787	170200	18 23.1	+06 [illegible]	"	"	"	24.1	20 57	21 [illegible]	4	
4788	182704	19 34.1	+12 19	"	"	"	24.1	21 21	23 01	1	
4789	191313	19 [illegible]3	+14 12	"	"	"	24.1	23 04	0 24	2	
4790	206155	21 35.1	+08 44	"	"	"	24.0	0 27	1 47	3	
4791	210420	22 12.1	+39 41	"	"	"	24.1	1 51	[illegible]	4	
4792	233143	23 33.0	+47 39	"	"	"	24.0	3 01	4 [illegible]	1	
4793	3454	10 36	+55 36	"	"	"	24.0	4 26	4 [illegible]	2	

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
0 47 E	+43 10	1	6 40	A5	1-2-1	Ring
0 11 E	+05 08	1	5.57	38	1-2-1	B.S.C.
0 30 W	-02 14	1	6 8 v	38	1-2-1	Ring
0 30 W	+14 43	1	736	F½	1-2-1	K S A 88
1 17 W	+08 53	1-2	6 8 v	A0	1-2-1	Ring
1 29 W	+29 51	2-3	7 52	G8	1-2-1	K S A 66
1 24 W	+45 50	2-3	734	G5	1-2-1	K S A 43 Right Edge
0 9 W	-17 37	3-4	6 70	G5	1-2-1	SC Triangle

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Date Fri. Aug. 11-12, 1939 S-H-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle
4794	NGC 6366	17 22 4	-04 59	Newt.	Ad. Ha			8 47	9 14	1	
4795	6402	17 32 4	-03 11	"	"			9 25	9 55	2	
4796	6171	16 10 7	-13 00	"	"			10 10	10 30	1	
4797	6720	18 44	-32 54	"	Ad. VIII			11 07	11 27	1	
4798	"	"	"	"	Ad. L			0 01	0 31	2	
4799	6205	16 32	36 34	"	Ad. II			0 50	0 56	1	
4800	[illegible]	03 21	41 59	"	Eastman IG			1 26	2 03	2	
4801								4 [illegible]	[illegible]	1	
4802	IC 5117	21 41	56 28	"	"			3 56	4 28	2	

Sat - Aug 12-13/1939 M-H-T

135 cirrus. Cloudy M talked on Thorp
H down to the 74" to Leuschner

Time T.	Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
						Very Bright Aurora Lighting.
						Focused on Vega.
					Filter No 7	
					Filter 89	
					Filter 15G	Polaroid. Notes on polaroid, light & filter.
					"	"
					"	

Much Time Lost Having might due To my unfamiliarity with guiding before field after night was Not well spent.

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Date Sunday Aug. 13 14, 39 H.S.L. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4803	N.G.C. 6205	16 38.1	36 39	Newtonian	Astra II			20 37	20 42	
4804	"	"	"	"	"			20 45	21 15	
4805	" 6366	17 22.4	-04 59	"	"			21 26	21 53	
4806	" 6818	19 50.3	-14 24	"	I G			22 30	23 20	
4807	" 6402	17 32.4	-03 11	"	Astra II			23 21	00 01	
4808	" 6179	19 [illegible]	30 00	"	"			00 10	00 28	
4809	" 6205	16 39.1	36 39	"	"			00 36	00 41	
4810	" 6816	19 [illegible]	+19 42	"	I-G			01 08	01 35	
4811	" 7662	23 [illegible]	+41 59	"	"			01 54	02 29	
	"				"			03 33	03 [illegible]	
4812	" 5024	01 28.2	30 05		Astra II			03 47	03 53	
4813	" 7089	21 [illegible]	-01 16		"			04 08	04 15	

Time T.	Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
		Filter 15G				{Telescope remained in RA at close of exp. RA clamp screw had shifted! Postponed exposure.
		Filter 15G				← (Trouble finding nebula.
29			Plate [illegible]			This space is [illegible] from [illegible] end
						Aug. 14 10 MC −1 45.5 SC −1 56.4 SW +13.8 MT +18.0 ST +0.7 Reset

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Date 1917 Aug. 14-15 Mean. H & L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4814	NGC. 6254	16 51.9	-3 57	Newt	Astro E			20 36	20 41	
4815	" 6218	16 42.0	-1 46	"	"			20 44	20 49	
4816	" 6205	16 36.1	+36 39	"	"			20 57	21 [illegible]	
4817	" "	"	"	"	"			21 05	21 11	
4818	" 6426	17 22.4	-04 59	"	"			21 31	22 16	
4819	" 6402	17 34.4	-03 11	"	"			[illegible] 06	[illegible] 09	
4820	" 6779	19 12.7	+30 00	"	"			23 04	23 24	
4821	" 7662	23 21.1	+41 39	"	I G			[illegible] 50	[illegible] 30	
	" "	"	"	"	"			00 [illegible]	01 15	
4822	" "	"	"	"	"			01 10	01 45	
	" "	"	"	"	"			01 53	02 22	
4823	" 595	01 28.2	+30 03	"	Astro E			02 39	03 46	
4824	" 7089	21 38.3	-01 16	"	"			03 54	04 04	
4825	" "	"	"	"	"			04 05	04 10	

Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
					[illegible] $21^{20}-21^{21}$, $21^{25}-21^{27}$, $21^{28}-21^{30}$, $21^{33}-21^{35}$
[illegible]	[illegible] plate holder				[illegible]
	[illegible] plate holder [illegible]				[illegible]
	[illegible]				at 45° [illegible]
	[illegible]				at 45° [illegible]
					[illegible]

		MC	SC	SW	MT	ST
Aug. 15	10	-1 46.2	-1 56.6	+09.7	+16.2s	+0.1m

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Date 1939 Aug. 15-16 H S L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle
4826	NGC 6205	16 35.1	+36 39	Newtonian	Agfa II			20 56	21 11	1
4827	- 6254	16 50.9	-05 47	-	-			20 45	20 59	2
4828	- 6218	16 42.0	-01 46	-	-			21 02	21 27	1
4829	- 6356	17 22.4	-04 19	-	-			21 39	22 12	2
4830	- 6779	19 12.7	+30 00	-	-			23 25	23 40	1
				Aug 16-1939	M					
4830 F1				I-12	Agfa Red					1
4830 F2				I-12	Agfa Red					2

Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
					Seeing poor! Aquila
					Aquila
					Squila
					Equator clouds after this exposure to 2.35
					Equator off E 46 - 22 05, 22 12 - Clouds over
					Equator off 23 31 - 23 34, 23 35 - 23 36, "
					MC SC SW MT ST
					Aug 16 10 -1m 46.s4 -1m 56.s8 +07.s3 -46.s3 -0.m1
	focus 26 24	Tilt	20.17		
Equatorial setting	1			20 - 15	scale 30 sec slot (refilled) 60 sec
	4			12 - 9	diaphragm out strips " 150 "
	focus 26.18	Tilt	19.43		
"	2			4 - 4	diaphragm out plate 180 sec.
	5			7 - 7	" "
					Tilt set to read 1
					focus read 26.1

Date [illegible] 1-2 M.T. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	
4530	HD 156891	17 15 0 (1934)	[illegible] (1934)	[illegible]	[illegible]	.010	24	25	8 16	[illegible]	3
4532	Trans.	19 49 [illegible]	−27 21	—	Ilford Red	.060			22 08	—	1
										22,22	
4533	—	—	—		—	—			22 23	22, 30	2
4534	—	—	—		Astra IV	—			22 31	22 38	3
4535	—	—	—		—	—			22 39	22 —	4
									—	22 44	
[illegible]	HD [illegible]	19 59 3	14 4 [illegible]		Astra II	.010	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	1 35 [illegible]	[illegible] 44				[illegible]	[illegible]	0 35	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	

Telescope suspension system thermostat 19.9

Time T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	1 26W	5E 49	1	6 ; 8	K₀	1-2-1	Tuned to target & biased star.
	.60 sec }	slit .010 for first two		A			All settings on Mars plates run from -1 to +3.5
	60 }			B			
	60		1 - 0	A			exposures to split
	60			B			
	60			A			
	60			B			stage 180 s
	5			A			slit 300 s
	5			B			scale 150 s
	5			A			
	5			B			
	all 15 s			A etc			" "
	all 4 s			B etc	Zeiss	38A	stage 120 s slit 60 s scale 40 s
	2 2			A	"	"	" " "
	2 2			B			
	2 2			A			
	2 2			B			
	10 1			A			
	10			B			
	10			A			
	10			B			
	10			A			
	10			B			
	5 W	14 47	- 0	7.36	Esp	1-2-1	E of M Sat. ✓
	4 S W		1	6 8 - 7	Ao	1-2-1	Iapetus
		13 07		7 ±	Ko	1-2-1	Occ. by Saturn's ring

Date Thursday, Aug 17-18, 1939, M-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
4839	HD 198478	18 37	27 46	I – 12	Astra II	.010	17.9	26.0	20 10	21 30	1	
4840	Neon	(19.0) 19 99.0	(-27.3) -27 20	—	Astra IX	.060 L			22 01	22 07	1	
4841	—	—	—	—	—	—			22 06	22 11	2	
4842	—	—	—	—	Infra Red	—			22 12	22 17	3	
4843	—	—	—	—	—	—			22 19	22 28	4	
4844	HD. 198690	20 47.0	42 01	—	Astra II	.010	17.7	26.0	22 43	23 [illegible]	1	
4845	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17 [illegible]	26 [illegible]	23 50	1 [illegible]	[illegible]	
4846	[illegible]	23 10	27 32	[illegible]	[illegible]	[illegible]	17.9	26 [illegible]	1 30	2 [illegible]	[illegible]	
4847	[illegible]	2 41.8	29 17	[illegible]	[illegible]	[illegible]	17.8	26.0	2 35	3 [illegible]	[illegible]	
4848	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17.8	26 [illegible]	3 45	4 [illegible]	1	

set tilt to 19.43 for Mars plates. Reset tilt to 20.17 for other plates.

Hour Angle End	Declination	Seeing	Ptg. Mag.			Pointed at 20.20 REMARKS
						MC SC SW MT ST
0 53W	27 04	1	7.22	Az	1-2-1	Aug 17 10 -1 47.3 -1 57.0 +04.6 +12.2 +0.1
all exposures	3 sec	setting -1 to +3	Filter	38A	A then B	strips 100 sec (38A), scale 25" = 1, spot 2"
" "	10 sec	"	"	"	"	" " " " " " "
" "	10 sec	"	No filter		"	" 240 sec No filter " 240 sec " 300 sec
Artificial 0 04W	60 sec	-1 to +4	"		"	" " " " " " "
C 22W	+2 06	2-3	7.15	B8	1-2-1	
C 50W	42 52	2-3	7.36	F5	1-2-1	Telescope bobbed [illegible]
C 41W	29 43	2	6.45	A2	1-2-1	[illegible]
1 33E	29 24	2-3	7.17	F5	1-2-1	
1 19E	16 32	3-4	7.02	A0	1-2-1	
						Aug 18 10 -1 48.8 -1 57.7 +05.6 +11.4 +0.5 Read

Date Fri Aug 13-14, 1939 Hd-Bs Julian Day 9+9.4

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
4848	+5 16 c 781	17 36.7	06 22	I-12	Cal-I	010	17.7 26.1	7 57	8 57	2	4.7m
4849	mvc 312 +D 180398	19 11.3	12 56	"	"	015	17.9 26.0	9 02	10 52	3	1.8
4851	+D 199665	20 53.6	10 28	"	"	010	17.9 26.0	10 [illegible]9	11 37	4	1.1m
4852	+D 201616	21 05.6	09 38	"	"	"	17.8 26.0	11 40	0[illegible]m	1	[illegible]
4853	+06 5[illegible]	21 37.6	+11°21				17.[illegible] [illegible]	0[illegible]39	0[illegible]	2	
4854	[illegible]	[illegible]	[illegible]				17.7 [illegible]	0[illegible]39	2[illegible]	3	
4855	[illegible]	23 36.9	+06°4[illegible]				17.7 [illegible]	0[illegible]11	03[illegible]	4	
4856	2 913	00 [illegible]	+06°25				17.[illegible] [illegible]	0[illegible]4	[illegible]	1	
4857	11, +57	01 43.3	+03° 11				26.[illegible]	0[illegible]21	[illegible]		
	Sat Aug 19-20			Hd-Bs			about 10 minutes		Bs about		Tan[illegible]
							Cloudy, all evening				

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
W 47m	6 20	1	6.98	K0	1-2-1	B.S.C Some haze at first Some clouds
W 1h 08	12 58	2-1	7.7	B9	1-1-1	
W 11m	10 36	2	6.4	K5	1-2-1	BSC
0 52 W	9 47	1-2	6.05	A2	1-2-1	BSC Haze
0 [illegible] W	+10° 31	1-2	5.9	F	1-2	Clouds everywhere at end
0 47 W	+10° 43	1-2	6.94	K	1-2-1	
0 52 W	+10° 59	1-2	5.85	A0	1-2-1	
0 45 W	+06° 31	1-2	5.65	F0	1-2-1	Bright preceding (de star ter)
0 44 W	+03° 02	1-2	6.28	G5	1½-2	

Good transparencies, Telescope

Thick at 0°, 1°, 2°, 3°

		HC	SC	SW	M.T.	S.T.
Aug. 19	10	-1 48.6	-1 58.1	+05.4	+10s.0	+0m.5 Quart

Date 1930 Sun Aug 20-21 L-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
9858	HD 214557	22 53.9	+45 19	F-12	Agfa II	1.01	15 15.5	0 28	1 [illegible]	1.5
9859	17 Lac	22 17.6	+39 5				15.6 22.2	2 53	3 11.4	1.7
9860	13 And	2 23.4	+46 [illegible]				15.2 23.8	3 17	3 55 1	1.2
9861	42 Cet	3 25.8	+1 [illegible]			1.1	15.2 23.8	4 57	5 51 2	1.1

Clouds earlier

Time T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	0 59W	45 29	2	7.57	F8	1-2-1	SA 42
	0 31W	29 05	2-1	7.00	A5	1-2-1	Binary ? Right ascension See Aug 9-10
	0 33E	16 55	2	6.55	F5	1-2-1	K8 47c
	1 07E	31 45	2	6.90	F2	1-2-	Binary

		N.S.	S.S.	S.W.	H T	S.T.
Aug. 21	10	+00.3	-1 59.3	+02.0	+06.2	+0.1
		Rest	+ 00.7		Rest.	
		0.3 wt. removed	Rest			
			0.2 wt removed			

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Date 1939 Monday August 21-22 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
						Slit-	Air- Dew-				
4862	HD 172187	18 33.7	+43 08	I-12	Ast. U	110	16.3 24.2	20 07	20 47	3	
4863	18.1117	17 14.1	+35 50	"	"	"	16.2 24.1	20 49	21 29	4	
4864	174881	18 07.7	+28 39	"	"	"	16.2 24.0	21 32	22 32		
4865	18.1925	19 31.5	+43 43	"	"	"	16.2 24.1	22 35	23 00	2	
4865	T1	Spectrum test for He discharge tube									
	T2	"	"	"	"	"					
4866	" 5596	00 12.6	45 03	"	"	"	Air- 21.6	02 19	04 00		
4867	" 16176	02 30.7	38 16	"	"	"	21.7	04 22	04 35	5	

Cloud & rain early evening. Clear at last.

Left at 189

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
0 27 E	+13 09	- 2	6.40	A5	1-2-1	Rather unsteady.
0 06 E	+30 54	2	6.48	F0	1-2-1	Very light cloud, only like a mist
1 23 W	+28 41	2-3	7.43	K0	1-2-1	
1 08 W	+43 46	3	6.58	F0p	1-2-1	Light cloud 22[48], Clear 22[55]
						Setting 1 3 5 7 9 / Hazy 1 2 8 4 16 / Fans 4 — Two filters at 22[12] in cloud, 1 at night
	Eyes 2 4 8	16 32 64[s] (d				Probably could have started sooner, but last retrieved
1 05 W	+45 15	1	7.25	A3	1-2-1	Imp. starts 3.00 clearing 3.30
2 04 W	+36 26	1	6.36	F5	1-2-1	BSC

		MC	SC	SW	MW	SW
Aug. 22	10	-00.2	-00.2	+00.5	+05.4	+0.2

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Date Tues Aug 22-23, 1939 Hd - L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
4368	HD 157681	17 19.6	53 31	I-12	a-Tri-X	0.10	14.7 22.8	7 50	8 54	4	1.9m
4369	MWC 307 HD 174886	18 47.7	-10 21	"	"	0.15 M	14.9 23.0	8 43	10 30	1	1.3m
4370	HD 188385	19 49.8	06 53	"	"	0.10	15.0 23.0	10 04	10 24	2	1.7m
4371	MWC 346 HD 195407	20 26.0	36 39	"	"	0.12	14.9 23.0	10 30	12 [illegible]	3	1.1
4372	MWC 525 HD [illegible]	21 37.2	36 14			0.15 M	13.0 23.0	00 [illegible]	[illegible]	4	2.1
	MWC 43 HD 15661	02 [illegible]	54 04				[illegible]	[illegible]	[illegible]		
4373	HD 9312	01 06.9	16 28			0.10	15.0 23.0	02 [illegible]	04 [illegible]	1	0.0 W
4374	21769	03 16.5	38 26				15.0 23.0	04 [illegible]	04 [illegible]	2	

Wed Aug 23-24 Hd-L Cloud and rain

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
W 58m	53 28	3	7.13	K5	1-2-1	BSC
W 55m (erased)	−10 19	2	8.1	B3e	1-1-1	Took very faint star in field. Check star of type.
W 17m	6 59	4	5.97	A0	1-2-1	BSC. Bright coronal arch, streamers and diffuse patches first noticed 9.15. – Brighter at
1 17 W	36 45		7.7	B3e	1-2-1	
59 W	56 21	3	8.1	B-e	1-1-1	
[illegible] star from field is plotted.						I could not locate it. 9.50, mostly diffuse patches & streamers, rapid motions.
0 19 W	16 37	2½	2.89	G5	1-2-1	At 10.4 it is a fine
0 51 E	38 23	1-2	6.33	A2	1-2-1	Suggs. Seattle evening sky, quiet curtains, faint bright sliding, dancing. At middle some faint streaks and spots. Faint change as you watch. 1. At 1° east some quiet clouds by moon, others, some bright, but not quiet

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Date Thurs Aug 24-25, 1939 T-12 Julian Day 9520

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
4875	HD 190323	19 59.3	+14 42	F-12	Ad 2	.015	14° 23°	10 28	10 38	3	+1 01
4876	" 1925	20 17.6	+38° 55	"	"	"	5° 3°	00 11	01 49	2	+1 59
4877	" 1948	20 20.9	+11° 40	"	"	"	15° 21°	01 51	01 59	1	+1 11
4878	" 20,134	20 38.8	+31° 41	"	"	"	25°	01 47	01 57	1	+1 11
4879	" 20,137	20 40.3	+11° 43	"	"	"	15° 20°	01 51	01 59	1	+1 11

Clouds, rain earlier.

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
2^{hr} W	14 47	1	7.36	Fsp	1-2-1	Thermostat 18 ;
6^{hr} E	+29° 05	1	7.00	A5	1-2-1	
0^{hr} W	+17° 14	1	6.20	K0	1-2-1	
1^{hr} E	+31° 50	1	6.96	F2	1-2-1	
3^{hr} E	+31° 59	1	7.05	K3	1-2-1	

		MC	SC	SW	MT	S.T.
Aug. 23 (for H)	10	-00^{s}.3	-00^{s}.5	-02.0	+04^{s}.0	+0^{m}.7
Binary (for V)	24 10	-00.4	-01.0	-04.5	+04^{s}.0	+0^{m}.9
K5A 6R (for H)						
Binary (for Y)						
K5 H-8 (for H)						
Aug. 25	10	-01.0	-01.8	-04.9	+03^{s}.2	+0^{m}.6

Rest

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Date Fri Aug 25-26 1939 T-Bo Julian Day 1501

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4880	HD 160740	17 36.5	+44 04	I-12	Astro	10.10	14.6 22.2	7 48	9 24	4
4881	177 52	18 58.4	+44 14	"	"	"	14.5 22.7	9 27	11 07	1
4882	60 1345	21 03.1	+33 00	"	"	"	14.5 22.7	11 11	01 [illegible]	2
4883	209 07	23 33.0	+21 57	"	"	"	14.5 22.7	01 [illegible]	[illegible]	3
4884	[illegible]	[illegible]	[illegible]	"	"	"	[illegible]	[illegible]	[illegible]	4
4885	17 33	02 41.3	+18 17	"	"	"	[illegible]	03 [illegible]	[illegible]	1

Polaris 17.85

Hour Angle End	Declination	Seeing	Ptg. Mag.			for M	REMARKS
1 [illegible] W	44 01	1	7.25	A2	1-2-1	Eyebridge	
2 [illegible] W	44 16	2-1	7.45	B4	1-2-1		
2 [illegible] W	33 58	2-1	7.52	B0	1-2-1		Heavy dew
[illegible] W	+42° 04	2-1	6.77	B9	1-2-1	HSA 43	
[illegible] W	41° 05	2-1	6.54	B9	1-2-1	[illegible]	
[illegible] W	+[illegible]	2-1	7.17	B9	1-2-1	[illegible]	

		MP	SE	SW	MT	ST
Aug. 26	10	-01.0	-02.5	-08.1	+02.6	+0.6

Date Dec. 29-27, 1911 M-B Julian Day 9502

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
							A B			
9586	HD 194390	20 54.9	42 18	I 12	[illegible]	1/10	14° 22°	22 31	2	
9587	487	00.04.5	145°50				14 - 21	00 19	01	
9588	1826	00.17.6	+18°55				14 - 21	01 54	02 51	4
9589	17 h 88	02.39.2	+57°19				10 - 15	03 [illegible]	[illegible]	1

About 150 units.
Mabud β Cygni with 74-inch
Ba shows Rare with 4" Tran with 24

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
						Guide ~1717
1h 41 W	47 21	2-3	7.20	B3	1-2-1	
35 E	+46°01	2	6.98	B3	1-2-1	KSA 43
0h 34 W	+29°33	2	7.03	A5	1-2-1	
0h 7 W	+37°28	2	7.15	B2	1-2-1	

Date June Aug 17-23, 1939 Hal-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4490	*D 161959	17 43.7	27 58	I-in	ortho II	010	17.2 25.4	7.40*	9 10*	2
4491	183262	19 28.6	17 38	"	"	"	17.1 25.5	9.14*	10 14*	3
4492	" 196316	20 30.8	43 01	"	"	"	17.2 25.5	10 18*	11 59†	4
4493	" NWE 402 223501	23 40.0	61 39	"	"	.015	17.3 25.5	00 03*	23 30*	1
4494	" SE 33	20 58.0	46 31	"	"	.010	17.4 26.0	21 55*	0 45*	2
4495	" 1826	00 17.5	22 03	"	"	"	17.4 25.5	00 44	1 00	2
4496	" 2214	03 08.5	31 41	"	"	"	17.3 25.5	02 54	03 00	3

Hour Angle End	Declination		Seeing	Ptg. Mag.				REMARKS
W 1h 31	28	55	2	7.36	A0	1-2-1	Suff	
W 50m	17	43	2	6.73	A2	1.2.1	"	
W 1h 31	43	09	3-2	7.38	F2	1-2-1	"	
0h 33 W	61	53	3-2	8.2	B30	1-1-1		
[illegible] E	46	59	3	6.75	A0	1-3-1	Supp	
[illegible] W	70	05	3-2	7.05	A5	1-2-1	Binary (Y)	
[illegible] 31 E	51	16	3-2	6.90	F2	1-2-1	" (Y)	

Note: at 10.45 I confirmed an impression that Stromgren's clock was losing; at that time found it about 12½ min slow (both MT and ST) – not random – it was apparently correct at 7.40, or perhaps 2m slow.

Later: at 11.45 correction to MT = + 14m, to ST = + 15¼m; meanwhile discovered that it is only the minute hands that lose – seconds hand O.K.

Probably should apply corrections to times marked * by proportionate parts of + 2 to + 11

† ed = watch correct (approx)

L [illegible] kept by [illegible] watch

		MC	SC	SW	
Aug. 28	10	-00.9	-03.7	-08.7	Omega watch being repaired

Date Monday 1939 August 28-29 H-B$_S$T **Julian Day** 9504

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
4897	HD 172, 187	18 33 7	+43°08	1-12	Ilford Zenith	.010	17.3, 25.6	21 18*	21 30*	1	30 W
4898	194, 688	20 21.3	+17°01	"	"	"	17.5, 255	22 03*	22 15*	2	
4899	201, 134	22 10.0	+21°00	"	"	"	17.3 255	23 27*	23 39*	3	3 W
4900	222-143	23 33.0	+45 34	"	"	"	17.3 255	23 23*	0 35*	4	0 12
4901	5526	0 52.0	+45 18	"	"	"	17.3 255	0 42*	0 54*		

H showed a flare, M13 to about 5th meteorological
Bs focussed on α Lyrae. Focus set 19.65

Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
1 30 W	+43° 08	1 2	6.40	F8 1-2-1	Binary
1 07 W	+17° 07	1-2	7.17	K0 1-2-1	KSA 88
1 13 W	+16° 15	1-2	7.50	F5 1-2-1	KSA 68
1 02 W	45 51	2	7.34	G5 1-2-1	" 43
	45 29		7.24	K0 1-2-1	" 20 Clouds 1 10 - 1 30, 2 05 -
					* by Bs's watch 22:42:00
					† Interval 20:50:01

		MC	SC	SW
Aug. 29	10	-01.0	-04.4	-12.2

wt. decreased from 2.0 to 1.5

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Date Tuesday, Aug 29-30, 1939, M-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A°	Temperature B°	Starting Time E.S.T. (Sid Watch)	Ending Time E.S.T.		Hour Angle End
4902	H.D. 191855	20 69	30 29	I-12	Astra II	.010	16.6	24.7	19 33	20 43	2	1 34 N
4903	B.D. 56°2640	21 43.1	+56 28	—	—	.017 L	16.6	24.8	20 56	3 36	3	
4904	H.D. 5764	0 59.2	+47 29	"	"	.010	16.6	24.9	23 43	1 36	4	
4905	" 6676	1 02.4	51 44	"	"	"	16.5	24.8	1 36	2 20	1	
4906	" 22850	3 35.2	+58 23	"	"	"	16.6	24.5	2 25	3 13	1	

* Read sidereal watch ½ minute back. Second hand not synchronized with minute hand.

Clouds after sunset – cleared later. All lights went out at 18-38 S.T. then came on again but almost immediately dimmed so delayed opening a little

Hour Angle End	Declination	Seeing	Ptg. Mag.		mi flick	REMARKS
0 34W	30 36	1	6.70	B9	1-2-1	Pointer at 19.15
1 5 W	56 37	2	9.0		¾-¾-¾	
0 31 W	57 40	2	6 15	Pg	1-2-1	Clouds 0 0 0 -1 30
1 15 W	57 -9	2-3	5.6	Pg	1-2-1	Partly Cloudy
0 22 E	28 30	2-1	6 51	Bg	1-2-1	

		MC	SC	SW
Aug. 30.	10	-01.5	-05.5 Wt decr. to 1.0	-12.8

Date Wed. Aug 30-31, 1939 Mst - Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4907	AD 179649	19 08.3	21 23	I 12	Ac Zon I	0.10	15.6 23.6	18 51	19 23	3
4908	AD 188395	19 49.8	06 53	"	"	"	15.6 23.7	19 27	20 07	4
4909	AD 199165	20 53.6	10 28	"	"	"	15.6 22.7	20 11	20 51	1
4910	AD 202923	21 13.9	53 34	"	"	"	15.5	21 [illegible]	21 34	2
		I-12 focus [illegible] 20.02 Tilt 20.17							Changed	
4911	Focus			I-14	all-Ac I	-10	24.1			2
4911	Co (Hyd)			I-14				22 35		
4912	"			"				22 41.5	22 [illegible]	
	"							21 54.0	22 00	
								23 [illegible]	23 [illegible]	
4913	"			"	"	"		23 [illegible]	23 [illegible]	4
	"			"	"	"		0 [illegible]	0 [illegible]	
	"			"	"	"		0 [illegible]	1 [illegible]	
4914	"			"	"	"		1 [illegible]	2 [illegible]	1
	"			"	"	"		2 [illegible]	2 [illegible]	
	"			"	"	"		2 [illegible]	3 [illegible]	

Clearing after dark

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Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
4/12m	21 27	0	5.90	A0	1-2-	Some clouds
10/15m	06 59	1	5.87	A0	1-2-1	B&F " "
25m	10 35	2	6.61	K0	1-2-1	
10/15m	53 45	2	5.99	A0	1-2-1	
E 1	-25					
Finished clearing						
					5-5	#1
					5-5	6
01E					5-5	9
					5-5	1
					5-5	5
02E					7-7	3
					7-7	1
					7-7	2
02E					7-7	3

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Date Wed Aug 31 1904 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature Keeler	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
- 4915	K Cass.			T 25	Ilford	.010	60 [illegible]	00 [illegible]	00 [illegible]	
	"			"	"	"		03 [illegible]	03 [illegible]	
	"			"	"	"		03 [illegible]	03 [illegible]	
- 4916	"			"	"	"		00 [illegible]	00 [illegible]	
	"			"	"	"		00 [illegible]	00 [illegible]	
	"			"	"	"		00 [illegible]	00 [illegible]	
- 4917	"			"	"	"		01 [illegible]	01 [illegible]	
	"			"	"	"		01 [illegible]	01 [illegible]	
	"			"	"	"		01 [illegible]	01 [illegible]	
- 4918	"			"	"	"		01 [illegible]	01 [illegible]	
	"			"	"	"		01 [illegible]	01 [illegible]	
	"			"	"	"		01 [illegible]	01 [illegible]	
- 4919	"			"	"	"	58 [illegible]	02 [illegible]	01 [illegible]	
	"			"	"	"		02 [illegible]	03 [illegible]	
	"			"	"	"		02 [illegible]	01 [illegible]	

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
					7 7 Set 1	
					7-7 - 6	
	6[28] W				7-7 - 9	
					7-7 - 1	
					7-7 - 6	
	9[36] W				7-7 - 3	
					7-7 - 1	
					7-7 - 6	
	10[2] W				7-7 - 9	
					7-7 - 1	
					7 7 - 6	
	1[33] W				7-7 - 9	
					7-7 - 1	
					7-7 - 6	
	2[05] W				7-7 - 9	

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Date [illegible] Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4900	K Cass			I-25	Am III	010		2 32	2 40	
	"			"	"	"		2 43	2 [illegible]	
	"			"	"	"	46-50	2 49	2 [illegible]	
	Thurs Aug 30/39. 40									
	Changed to I-12									
4902	Focus			I-12 after I		010	46	2 39		
				"						

Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
				7-7	[illegible]
				7-7	[illegible]
2 [illegible] W	62 35			7-7	[illegible]
					MC SC SW
				Aug. 31 10	-01.4 -05.2 -24.9
Altitude [illegible] base 10/10				oct 1	25.9 Tilt 20.18 / 26.18 should be
				-6	26.0 OK. Set Y 20.
				-9	26.1

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Date Thurs Aug 31-Sept 1, 1939 T-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
							27.7	Sept 1		
4921	HD 14c45c	14 59.7	+17 26	I-14	Ad II	10	15.9 +18.4	20 03	22 43	2
4922	21 Eri	21 [illegible]	+17 09	"	"	"	15.1 23.3	22 13	23 43	3
4923	- 2455	00 27.1	-16 57	"	"	"	14.7 23.9	23 45	00 44	4
4924	- 8110	01 20.2	-13 11	"	"	"	15.7 23.9	00 46	02 08	1
4925	- 18214	02 27.5	-14 56	"	"	"	16.7 23.3	2 15	02 57	-

Clouds, observations.

Hour Angle End	Declination	Seeing	Ptg. Mag.		Thermometers	REMARKS
2 01 W	17-34	2-1	7.27	F8	1-2-1	Haze clouds.
1 [illegible]	17 15	1-2	6.93	A0	1-2-1	" Clouds and fog
0 [illegible]	43 39	2-3	5.93	A0	1-2-1	haze " surrounding country
0 44 W	43 22	2-3	7.27	F2	1-2-1	
0 27 W	14 45	2	6.93	F5	1-2-1	Haze appears fairly thick
						making very good, hard to judge
						systems.

		MC	SC	SW
Sep. 1	10	-01.6	-05.0	-26.2

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Date ... Julian Day ...

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle Int
4926	HD 199579	20 [illegible]	[illegible]	I-12	[illegible]	[illegible]	16°6 24°8	19 21	20 37	3	
4927	[illegible]	[illegible]	[illegible]	—	—	—	[illegible]	20 45	[illegible]	[illegible]	
4928	22, [illegible]	21 36 5	+26° 18				16.3 24.6	23 00	01 [illegible]	1	
4929	[illegible] 264	00 30 [illegible]	+61° 00				[illegible]	01 14	02 15	[illegible]	
	Focus Test						[illegible]	[illegible]	[illegible] 20.18		
4930	[illegible]	[illegible]	+24° 45				16[illegible] [illegible]	01 [illegible]	[illegible]	2	

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
[illegible]	[illegible]	2-1	1.87	B9	1-2-1	
[illegible]	42 38	2	7.50	G7	1-2-1	
[illegible]	+46°31	1	7.31	B9	1-2-1	
[illegible] W	+18°10	1	7.02	A0	1-2-1	
	← Th[illegible], clouds					
	[illegible]					
[illegible] E	+12°22	1-2	4.35	G8	1-2-1	

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Date Saturday Night 2-3 1934 Julian Day 33.7

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
4931	NGC 7218 ?	18 33.7	+43 08	I-12	Ast II	2.4 010	A 16.3 B 24.2	20 50	21 30	4	
4932	200039	20 55.9	+75 32	"	"	"	16.1 24.2	21 34	22 18	1	
4933	201909	21 17.5	+77 43	"	"	"	16.6 24.8	22 02	22 45		
4934	204353	21 [illegible]	+64°40				16.6 24.7	22 [illegible]	23 [illegible]	5	
4935	[illegible]	00 17.6	+83°13				16.5 24.7	23 [illegible]	00 [illegible]	4	
4936	[illegible]	01 [illegible]	+87°03				16.6 24.7	00 33	01 [illegible]		
4937	16, 78	02 16.3	+41°51				16.6 24.7	02 [illegible]	03 [illegible]	2	
4938	16, 76	[illegible]	+81°18				16.6 24.7	05 [illegible]	[illegible]		
	Focus test										

75± visits. Weekend 4/19, [illegible] E figure
Be — seeing fluctuating and [illegible].

Pointing out at 19.0; later galvo needle nearly off [illegible] at 19.42 [illegible]

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
2 ^{55} W	+43 02	3	6.42	A5	1-2-1	[illegible]
1 ^{22} W	+75 41	4	6.99	G5	1-2-1	KSA 7
1 ^{28} W	+77° 52	3	5.55	[illegible]	1-2-1	KSA 7
1 ^{03} W	+ 44°52	2-3	6.95	F8	1-2-1	Heavy haze + [illegible] mist
0 ^{24} W	+ 29° 16	2-3	7.00	A5	1-2-1	[illegible] (Y) Image [illegible]
0 ^{26} W	+48° 38	3-4	7.54	F0	1-2-1	KSA 21
0 ^{26} W	+ 47°59	3	7.34	A5	1-2-1	KSA 22
1 ^{00} W	+ 38° 28	3	6.16	F5	1-2-1	BSC
	Outside Humidity base				9/12	

Date Sunday Sept 3-4 1939 N-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time ~~E.S.T.~~ Sid. Time	Ending Time ~~E.S.T.~~		Hour Angle End
						set	° F				
4939	HD 172157	18 33.7	+43 08	I-12	Astro II	010	19.6? 27.9	18 05	18 39	4	0 04W
4940	167944	18 12.4	+12 02	"	"	"	27.7	18 45	20 15	1	2 15
4941	187372	19 49.4	+43 39	"	"	"	27.5	20 19	21 27	2	1 44
4942	196815	20 35.4	+37 43	"	"	"	27.8	21 32	22 42	3	1 11
4943	209149	21 26.1	+32 33	"	"	"	27.8	22 45	23 28	4	0 35
4944	1926	00 17.6	+28 55	"	"	"	27.8	23 30	00 30	1	0 00
4945	A362	00 40.9	+59 02	"	"	"	27.8	00 33	01 33	2	0 01
4946	22124	03 28.8	+31 41	"	"	"	27.8	02 33	03 50	1	1 17

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
0 04 W	+43 10	1	6.41	A5	1-2-1	Binary
2 00 W	+12 03	1	7.55	E5	1-2-1	KSA 86
1 40 W	+47 45	1-2	7.59	M0	1-2-1	KSA 91
2 05 W	+47 51	2	7.42	G5	1-2-1	KSA 40
1 26 W	+32 43	2	6.48	F5	1-2-1	KSA 16
1 10 W	+20 07	2	7.00	A5	1-2-1	Binary Y1
0 51 W	+33 14	2	7.27	G5	1-2-1	KSA 60
0 11 E	+31 42	2	6.91	F2	1-2-1	

Date Monday, Sept 4-5, 1939, M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
-4947	BD 56°2640	21 43.1	+56 28	I — 12	astro II	.020 L	15°	24°.0	20 37	[illegible]	3	
4948	HD 149113	02 11.5	+11 09			.020	15.7	24.0	23 43	01 27	4	
*4949	— 4554	00 23.4	+11 39						01 30		1	
4949	[illegible] - 23437	03 40.4	+43 46				15.7	24.0	01 55		2	
	Focus Test			Objective through base								

Property of Harvard College Observatory

Rain during first part of evening.
Cleared later.

Hour Angle End	Declination	Seeing	Ptg. Mag.			Pointer at 18.82 REMARKS
1^{52} W	56 37	2	9.0		½-¼-½	Haze from W coming up shortly after start of obs.
0^{56} E	17 19	1	7.32	A$_2$	1-½-1	+1.03 Haze, light cloud.
	17 19	1	7.32	A$_0$	1	1.25 Hazy and images unsteady at 1.45 sky light from Sun
	42 47	1	7.05	B$_3$	1-2	1.25 developed so that I was impossible to find the star on plate although at beginning of exposure star was OK.
					9/12	.75 Scattered clouds 02^{00} - 02^{30} thick 2^{30}-3^{40}, back from 3^{45} on

		MC	J.C.	S.W.
Sep. 5	10	+07.4	+04.6	+28.9

Date 1919 Sept 5-6 Tuesday Bs - L **Julian Day** 9512

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time ~~E.S.T.~~ Sidereal	Ending Time ~~E.S.T.~~	Hour Angle End
4956	HD 172.187	18 13.7	+43°02	I 12	Astra II	Soft .010	49.3 74	18	19 41	
4957			+71°47				9.2 17.5	15	20	
4958							9 1 7.4	20		
4959										
4960										
4961										

Item no

Wed Sept 6/19 Htd Patton Schmidt telescope

8	Focus test			Schmidt	Eastman X-ray	.010	5.5 13.5			
9	Sky					.010 extra long	..		2 sec expos.	
10	Focus Test	Thickness of paper under bottom edge of plate holder				.010				
11		Thickness under "Top" edge				..	..			
12	Sky			..	..	..	..		1/2 sec exp.	
		Thurs Sept 7		Htd	Eastman cal.	to I-12				
4955F	Focus			I-12	Astra II	.010	6.0 14.0			2
4955F2	"			"	"	"	"			2

Pointer 14.02

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
0[h] W	+43°10	1	6.40	A5	1-2-1	Binary (H)
1[h] W	+27°.2	1	6 89	K2	1-2-1	Supe (Y) ? + 6.3
1[h] W	+30°.02	1-	7 16	A	1-2-1	6 [illegible]
1[h] W	+30°.40	1	7.40	F	1-2-1	" " " 67 [illegible]
1[h] W	+03 [illegible]	1	7.60	A5	1-2-1	B[illegible] W Magn. [illegible]
1[h] W	+46 [illegible]	1	7.11	A5	1-2-1	Sep. 22 Light clouds, Dew.
						Sep. 6 10 MC +07.5 SC +04.6 SW -28.0 Adv 1 min.
Install Thin bar		focus 0.78			no filter He 5/5	
						Lost the film
" "	"	"	0.40		"	
		"	1.20		"	
		"	"		He comp 4 sec	
Install Thin bar,		Focus 26.18			1 filter 10/10	
" "	"	"	26.22		"	← OK

Date Thursday Sept 7-8 1939 H-2 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4956	HD 172187	18 33.7	+43 08	I-12	26-F	2.4 010	A 11.1 B 10.2	21 35	25 05	3
4957	186760	19 41.3	+57 42	"	"	"	11.1 11.1	21 54	23 19	3
	206452	21 37.3	+57 08	"	"	"				4
4958	209139	21 56.1	+32 42	"	"	"	11.0 10.2	23 50	00 12	1
4959	5596	00 52.6	+45°03	"	"	"	11.1 11.9	01 59	03 32	2
4959	18155	02 48.8	+46°45				10.1 11.1	04 40	05 47	3
	From Tpt									

Clouds early evening; gradually thinning

Sept. at 15:25

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
3 19 W	+43 09	2	6.4	A5	1-2-1	MC SC SW Sep 7 10 +07.7 +04.7 -20.9 MT ST 13 +08.1 -0.2
2 20 W	+57 54	3	6.51	F1	1-2-1	
			7.52	F5		Clouded over during setting, & Standard
	+32 42	—	6.81	F5	1-	
1 24 W	+45 15	2	7 25	A3	1-2-1	
0 55 W	+46 57	2	7 13	K0	1-2-1 (5+7) 2-12	
Outside the box						
						SW MT ST Sep 8 10 +07.9 +04.9 -35.2 -24.8 -0.4

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Date Friday Sept 8-9, 1939, M-Bs. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature E	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
4960	HD 180553	19 11.9	27 17	I - 12	Astra II	.010	11.8°	20.0°	19 22	20 08	4	E

Pointer + 15.87

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
0 15E	27 21	3	6.24	By	1-2-1	Kitchen clouds over most of sky at 19.45 remained thick closed down at 20.45.

		MC	SC	B.W.	$M_s T$	$S_m T$
Sep. 9	09	−02.1	−04.7	−37.1	+14.8 Reset	0.0

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Date Sat Sept 7-8 1917 Mt-12 Julian Day 251

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
1196	#D201616	21 05 6	09 38	1-12	Anthony	0.10	8.1 16.0	9 58	10 32	1
1196a	210502	21 05 02	09 38	"	"	"	8.0 15.9	10 32	11 24	2
1196b	210588	21 05 88	09	"	"	"	7.7 15.7	11 25	00 [illegible]	3
1197	2139	01 58	+4° 24	"	"	"	7.8 15.8	00 [illegible]	01 11	4
1198	5511	00 53	+16° 31	"	"	"	7.8 15.8	01 16	02 06	1
1199	9312	01 26	+16° 28	"	"	"	7.9 15.9	02 [illegible]	03 [illegible]	2
	Focus Test							10 [illegible]	Next day	
			Moon Sept 11/19 4d		Schmidt focus Eq. after 8					
13	Fe arc comp.			Schmidt Eq.		0.10	7.6 15.6			
14	"			"	"	"				
15										
16										
17										

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
14h16m	9° 06	1	6.05 M2	1-2-1 10" Diagonal Hazy
14h12m	11° 17	1-2-1	7.10 K5	1-2-1 11K Needle-like light cone in field with no
0h 17m W	14° 20	1	7.01 A0	1-2-1 Good.
0h E	+03° 35	2	6.59 F8	1-1-1 Zc. .20
0h W	−01° 05	2	6.7c. A0	1-2-1 20 Bright Following
13h W	+15° 37	2	7.59 G5	1-2-1 Hazy 11 to 20. 10 to 0° 11 to
				1/2

	MC	SC	SW	MT	S.T.
Sep. 11 14	−02s.6	−04.8	+12s.8 Reset 1 m. back adjustment made	−28s.9	−0m.7

Focus: 12 inches to inches and 2 filters 2 sec

Focus .10 Nothing in filter

.40

.60 Very hard focus

.80 better

1.0c .20 better

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Date Tues. Sept 11 & 12, 1900 E.S.T. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4967	N.G.C. 6779	19 12.7	+30 00	Newtonian	Astra II			19 43	20 05 2	
4968	" 6366	17 22.4	-01 59	"	"			20 11	20 36 1	
4969	" 6205	16 38.1	+36 39	"	"			20 41	20 47 2	
4970	" 6853	19 55.3	+22 27	"	"			21 01	21 51 1	
4971	" 7662	23 28.1	+41 59	"	Cramer I G			22 51	23 22 2	
		Tues Sept 12		Ed	James & Schmidt					
18	Te and comp.			Schmidt	E Seeley	0.10	5.7 13.4			
19	"			"	"	"	"			
20	"			"	"	"	"			
21	"			"	"	"	"			
22	"			"	"	"	"			

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
				S Band of light- wires bad.
				S
				Unguided
				H' Focused a star before starting this exposure
Filter 15 G		Very thick	haze 23	10 m. S. Polaris N. star at 1st point leaving in.
			2 filters of sec	Focus .8
			1.	.9 #22 is beginning to look good, at last
			"	1.0 elongated in red.
			"	1.1
			"	1.2
				MC SC SW (MT s, ST m)
				Sep. 12 10 -02.4 -05.3 -32.7 (-44.8 -1.0)
				Reset: +15.2 +0.2

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Date Tues. Sept 12-13, '39 H.S.L. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4972	NGC 6779	19 12.7	+30 00	Newtonian	Astro II			19 50	20 15	1
4973	" 6402	17 32.4	-03 11	"	"			20 50	20 55	2
4974	" 6218	16 40.0	01 46	"	"			20 39	21 05	1
4975	" 6254	16 50.9	-04 07	"	"			21 08	21 14	2
4976	" 6205	16 38.1	+36 39	"	"			21 19	21 25	1
4977	6341	17 07.5	00 35	"	"			21 36	21 43	2
	"	"	"	"	"			21 [illegible]25	21 [illegible]36	
4978	6207	16 39.6	+43 28	"	"			22 03	22 09	1
	"	"	"	"	"			22 09.5	22 14.5	
4979	6839	"	"	"	Eastman IG			22 51	22 57	2
4980	7662	23 21.1	+41 59	"	"			22 05	22 47	1

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
				S
				S
				S
				S
				Regraded
				P
				Over the far vertical wire going for the increase down star
				S
				S
				S Pole is +30 from. Hour dial at 21h 21m - 9417 Both clocks, wrist dial

		MC	SC	SW	MT	ST
Sep. 13	10	-02.3	-05.5	+43.8	+04.3	+0m.7
					Reset	

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Date Wed Sept 14 1/59 H.S.L. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4981	NGC 6205	16 38.1	+36 39	Newtonian	Ansco 103a			23 22	23 27	1
4982	"	16 42.1	+41 59	"	Eastman 103a-G			23 45	00 30	2

Thurs Sept 14, Hd-B
Changed to I-25 (was Sept 5-6 for latest I-12 focus).

4982F	Focus	I-25	ultra II	010	121	20.0	Tilt 23.15		

Sharp and bright star testing.

Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
				S	
Polaris	5G			S	Polaris in 1" eyepiece, then changed to 4mm eyepiece. Only changed focus patches.
outside the box	Focus	2h2	1	4/4 sep.	1.4 1.0 MC -03·3 SC -05·9 SW +49 8 MT -24·6 ST +0·0
		2h4	6		
		2h6	9		2h.25 best

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Date Thurs Sept 14-15, 1939 Hd-B-Bs Julian Day 55+

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
-4993	γ Cygnae HD 180163	19 10.4	38 58	I-25	Process	0/0	16.0 24.1	7 54	9 04	1 W 1h 06
-4994	δ Cygnae HD 201601	21 5.5	9 44	"	"	"	15.6 24.0	9 10	11 32	2 E 1h 40
	1 Cas HD 15089	02 24.8	+62° 37				15.2 24.1	02 58	04 58	
	10 Aql	20 31[illegible]	+10° 29				16.1 24.0	04 04	04 [illegible]	
-4995	7 Cas	00 50.7	+60° 11					01 [illegible]	[illegible]	1
							[illegible]	[illegible]	[illegible]	
							16.5 24.5	[illegible]	02 [illegible]	
-4996	1 Cas HD 1[illegible]	00 47.3	+61° 23		E 33		16.2 24.4	[illegible]	[illegible]	1
-4997	7 Aur HD 32,[illegible]	04 59.5	+41° 06				[illegible]	04 29	[illegible]	1
	"	"	"				[illegible]	[illegible]	[illegible]	
							16.0 24.[illegible]	04 [illegible]	04 37	
-4998	1 Cas HD 15,[illegible]	02 21.6	+21° 51				15.7 24.0	04 47	[illegible]	2

mirror forced. Thought heat on mount 3 day. Put heat on in tube - cleared in 1hr
Temp control not working - has to be operated by hand.

Hour Angle End	Declination	Seeing	Ptg. Mag.			Pointing 1940 REMARKS
W 1h 06	39 01	0-2	4.29	B3	10-10	
W 1h 40	9 51	2	5.04	Fop	10-10	for B setting 5 } Clouds 10.55 - 11.20
39 W	+67° 02	3	4.6	As p	10-10	B " 9 } Mainly 1 cloud, [illegible]
0h E	+15° 45	3	3.96	Fo	10-10	B 1
	+6[illegible]15	2	2.25	Bo p	10-10	2 mm setting 1
					10-10	5 5
0 [illegible] W					10-10	12 9
1 37 W	+ [illegible]	2-3	[illegible]	Bo	5-	
			3.11	B3	10	1 mm setting 1
					10	2 5
1 [illegible] E	+ 41° 12				5-5	4 9
0 [illegible] E	+ 21' 59	3	4.66	B3 p	5-5	

		MC	SC	SW	MT	ST
Sep. 15	10	-02.6	-06.2	+59.2	-44.6	-0.3
				-00.8 Corr	+15.4 Corr	-0.1

Date ... Sept 15-16, 1939 Hd-Bs Julian Day ...

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
4989	2 Cygnae	19 10.4	38 58	I-25	E 33	0.10	22.1 29.5	7 03	7 41	1	
4990	HD 179648	19 08.3	21 23	"	Astra II	0.10	22.2 29.5	7 45	8 55	3	
4991	1 Sagittae HD 201601	21 05.5	9 44	"	E 33	0.10	21.2 29.0	8 59	10 19	2	
4992	2 Cygnae HD 193793	19 10.4	38 57	"	E 33	0.10	20.7 28.7	10 35	11 21	3	
4993	1 Pisc HD 220825	23 21.8	0 42	"	E 33	0.10	20.7 29.0	11 26	00	1	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Outside [illegible] base										
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
		Sept Sept 16									
	Standard	T	I 12		Set Tilt		20.18				

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
E 12m	39 01	1-2	4.29	B3	no filters 5"-5"	Note: Temp control mechanism worse still — galv. no longer indicates temp. — it stays at "warm" when temp in space is falling. Trouble in control box by switching thermometer leads, galv. circuit open.
W1h04	21 26	2	5.90	A0	filters 4-4-4	Suff.
W41m	9 52	3	5.04	Fop	no filters 5"-5"	for B
4h23	39 03	3	4.29	B3	5-5"	
0h [illegible]	+0° 56	2-3	5.00	A2p	5"-5"	for B
0h [illegible]	+69° 33	3	4.03	B0	5-5"	
1h5 W	+47°56	3	4.7	B4 nebβ	5-5"	
1h [illegible] E	+40°.8	2	5.51	B5	4-4-4 filters	BSC
1h [illegible] E	+41°08	2	3.11	B1	no filters 10-10	set 1
1h9 E	-02°36	2	3.54	B0	10-10	
					40/40	9
1h9 E	+71°36	3	4.66	B5	5-5"	

	MC	SC	SW	MT	ST
Sep. 16	-02.3	-06.2	+05.1	-05.6°C	+0m4

Date Saturday Aft 16-17. 1939 M-Es Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4998 F_1							22.0°	30.0°			

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	Some cirrus.				12/9	at this temp focus should be shortened a trifle
						About 35 minutes.
						Messrs M13 M57 β Cygni with 4"
						Bs " Jupiter, Saturn with 4"
						Light clouds came up at 21.30
						remained thick
						Cloud dome at 22.40.
						Hard, thick dew.

Date Sunday Sept. 17-18 1938 B-L Julian Day 9524

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
4999	H.D. 164280	17h 55.3	36° 17	I-12	Astro II	.010	10.0 17.9	19 27	21 10	3	.24
5000	H.D 177459	18 59.7	17 24	"	"	"	9.8 17.6	21 08	22 30	4	2.5W
5001	H.D 210170	22 03.4	17 09	"	"	"	9.6 17.6	22 39	00 00	1	
5002	H.D. 1826	00 17.6	28 55	"	"	"	9.7 17.7	00 14	01 30	2	
5003	H.D. 15505	02 [illegible]	45 34	"	"	"	9.8 17.7	01 54	03 10	3	
5004	H.D 22124	03 [illegible]	31 41	"	"	"	9.6 17.6	03 25	04 42	4	
5005	H.D 30911	04 [illegible]	27 39	"	"	"	9.6 17.6	04 45	05 21	1	
	Focus Test				Out of focus						

Temp. controlled by hand.

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
2 30 W	36 17	1-0	6.98	K0	1-2-1	BSC Cles.
2 56 W	17 28	1	7.05	F5	1-2-1	Foggy Seeing variable
1 30 W	17 14	1-0	6.98	A0	1-2-1	Super.
0 58 W	29 06	0	7.00	A5	1-2-1	Binary seeing bad.
0 20 W	45 45	0-1	7.55	G5	1-2-1	Super.
0 39 W	31 43	0-1	6.90	F2	1-2-1	Binary
0 01 E	27 47	0-1	6.25	F2	1-2-1	BSC 9½ 7½

	HC	SC	S.W.	HT	ST
Sep. 18. 10	-02°6	-06'.7	+4.6	-46°.4	-01".1
Reset.				+13°.6	-0C".1

Screw given one revolution from

Date Friday, Sept 18-19 1939, M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
5005 F1							7.8	16.0			1	
			/									
5006	HD 192684	20 11.0	22 33	I - 12	[illegible] II	.010	7.8	16.0	19 08	20 00	2	
5007	BD 26°3896	20 21.6	27 02	—	—	.020 L	7.8	15.9	20 05	22 4[illegible]	3	
5010	HD 221700	23 29.3	07 22	—	—	.020 L	7.6	15.8	22 49	01 [illegible]	4	
5011	" 1944	00 33.8	37 17	"	"	.010	7.6	15.9	01 31	02 37	1	
5012	" 21203	03 21.2	35 54	"	"	"	7.6	15.8	02 42	[illegible]	2	
5013	" 21540	03 23.4	46 42	"	"	"	7.7	15.9	03 50	04 [illegible]	3	
5014	" 21754	03 36.9	52 41	"	"	"	7.7	15.9	04 [illegible]	05 [illegible]	4	

found focus at +26.18
+focus to 26.21

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
base outset					12 10	focus seems O.K. printing at 15.25
0 42 E	32 41	2	6.9	B9	1-2-1	
1 48 W	27 10	2	8.8		½-1-	
1 19 W	07 35	2	(9.2)		½-1-½	Dome, tube, cord dirty. Lens dirty & dusted
1 11 W	51 30	2-1	6.80	A2	1-2-1	
0 53 E	60 02	2-1	6.43	B0	1-2-1	"
0 46 W	46 30	2	6.95	B0	1-2-1	"
0 25 E	33 45	2-3	6.30	A0	1-2-1	"

		MC	SC	SW	MT	ST
Sep. 19	10	-02.3	-07.0	+32.1	-00.3.2	-0.1

Date Sunday, September 19-20, 1937 H-M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
5015	HD 172187	18 33.7	+42 08	I-12	Astro II	2mm .10	A B 10.8 18.8	18 55	19 23	1	
5016	Blank	20 6.8	-24 46	—	Astro II	.10		19 50		1	
									19 54		
								19 59			
									20 02		
5017	—	—	—	—	Astro X	—		20 18		2	
5018	—	—	—	—	Infra Red	—		20 28		3	
5019	—	—	—	—	Infra Red	—			20 (33)	4	
									20 44		
5020	HD 193579	20 15.8	+17 29	—	Astro II	.10	18.7 18.6	20 57	21 17	1	

Temp set 17.4

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
0 22 W	+43 10	1	6.40	A5	1-2-1	Binary Light cloud.
-1½	A	4 sec				
-1	B		filter		38 A	steps 120 2 sec 20 slit 20 without filter
-½	A					38A
+½	B					
+1	A					Trouble by light cloud in S.
+1½	B					
+2	A					
+2½	B					
+3	A					
+3½	B					
+4	A	20 sec	—		—	— — —
-1	B					
	A					Seeing better but some haze.
+4	B					
-1	A	20 sec	—		—	steps 3 sec scale 3 sec slit 3 sec
	B					
+3½	A					
-1	B	60 sec	—		—	— — — —
	A					
	B					
+4	A					
	B					
16 W	+17 36	1	7.22	K5	1-2-	Light cloud from start. slit 21" = 21" for most of
						night. Seeing 12" very hazy. Clouds up to 22°

	HC	SC	SW	HT	ST
	c ′	s	s	s	m
Sep. 20 10	-02.4	-07.5	+42.3	-14.7	+0.4

Screw given 3 complete turns towards R

Date Wed Sept 20-21, 1939 Hal-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
5019	HD 177931	19 01.6	45 45	I-12	Eastman I	0.10	9.6 17.6	6 58	7 48	2	2h 11m
5020	HD 177599	19 00.3	15 35	"	"	"	9.6 17.7	7 54	8 44	3	1 20
5021	HD 190338	19 59.4	16 51	"	"	"	9.7 17.6	8 47	9 41	4	18
5022	HD 203015	21 14.5	17 24	"	"	"	9.6 17.6	9 44	10 38	1	1 01
5023	HD 214946	22 36.7	44 29	"	"	"	9.6 17.6	10 43	11 33	2	
5024	HD 1279	00 11.9	49 24	"	"	"	9.6 17.6	00 17	01 07	3	
5025	HD 9812	01 [illegible]	16 [illegible]	"	"	"	9.6 17.6	01 07	01 [illegible]	4	

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
W 23m	45 50	2	6.80	B9	1-2-1	Sniff.
W 1h 20	15 38	1	6.84	A0	1-2-1	" Tools, painter, [illegible] N preceding ? ? family, clear, fair 2 clock. ✓
W 1h 18	16 56	1	6.89	A2	1-2-1	" Some clouds
W 1h 01	17 34	1	6.97	F2	1-2-1	"
1 03 W	44 42	1	7.26	A5	1-2-1	" Cloud up after this exposure.
03 W	41 36	1	5.77	B9	1-2-1	BSC. Clearing, hazy, clouds.
	15 50	1	7.59	G5	1-2-1	Cloudy Clearing, clouds, shut at 3.45

		MC	SC	BW	HT s	ST m
Sep. 21	10	-02.3	-07.8	+52.9	-04.5	+0.2

Date Thurs. Sept 21-22, 1939 Hd. M-Bs. Julian Day 9528

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
5026	HD 168270	18 13.8	18 06	I-12	Cramer II	0.10	9.6 17.5	6 55	7 25	1	4.52m
5027	HD 170878	18 26.6	16 52	"	"	"	9.7 17.7	7 28	7 50	2	1.05
5028	Same	20 09.6	-24 31	—	Cramer IV	.060		20 30	—	1	-1.4
								—	20 34		
5029	"	—	—	—	—	—		20 36	—	2	
								—	20 44		
5030	"	—	—	—	Infra Red	—		20 46	—	3	
								—	20 54		
5031	"	—	—	—	—	—		20 55		4	
									21 03		
5032	HD 203991	21 20.5	18 02	"	Cramer II	0.10	9.6 17.7	21 18	22 58	1	
5033	HD 214946	22 36.7	44 29	"	"	"	9.6 17.5	23 02	0	2	

Friday, Sept 22-23, 1939 M-Bs

thin clouds and haze over most of sky

Taylor 16

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
W 52m	15 06	1	5.99	A0	1-2-1	Sc
W 1h 05	16 54	2	5.67	A0	1-2-1	"
" -1 A	5 sec		38	A	10 cl	2 filters 38A 20 R, 38A 120 R, red 120 R
+3½ B	5 sec					
-1 A	20 sec		38	A	10 cl	— — —
+4 B	20 sec					reference 5-8 360 R, 210 R, 210 R
-1 A	20 sec				10 cl	
+4 B	20 sec					
-1 A	60 sec				6 cl	— — —
+4 B	60 sec					
W 1h 18	17 12	2	7.47	A0	1-2-1	Sup
2° "	04 02	2-1	7.26	H5	1-2-	"

	MC	SC	SW	HT	ST
Sep. 22 15	-01.2	-07.3	+102.9	+04.3	-0m.0

from sunset on - thickening up after 22 00 Lt Str

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Date [illegible] Sept 22-23 Friday N-L **Julian Day** 9529

(continued)

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
5074	HD 18406	03 [illegible]	-12° [illegible]	1-12	Astro 3	.010	9.8	17 [illegible]	[illegible]	3	
	Focus test	Outside Rho [illegible]									
		1939	Sept 23-24 Sat		H-B6			JD 9530			Ro
5085	HD 18406	03 17.6	+28° 55'	1-12	Astro 3	.010	6.4	14.5	03 [illegible]	4	
5086	23 727	03 [illegible]	+43° 39'				6.2	14.1	03 [illegible]	1	
5087	23 [illegible]	03 [illegible]	+31° [illegible]				6.1	14.3	05 [illegible]	2	
	Focus Test	Outside Rho [illegible]									

Sunday Sept 24-25 B-L Rainy - clouds all night

Today Sept 25-26, M-L

damp in dome first part of night

Heavy rain and thunder storms in

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
						Sup. Zone 48 Set 4.5
0h 6	+37° 18	1	6 17	B9	1-	Off to ... cloudy 0425 Solid ...
					1 1/2	Set 8.5
						Po ... 13.7
	Rain earlier, then		mostly	cloudy		No visitors! Twilight ...
2h 40 m	+29° 20	U-	7 0	A	1-2 1	Binary (?) ... Tel. 9½ ...
0h 1 m	+45° 03	U	5 10	F0	1-2 1	Sup. ...
1h 8 m	+31° 48	U	6 9½	F2	1-2-1	Binary (?) ...
					1 1/2	7

		MC	SC	SW	MT	S.T.
Sep. 25	12	-01.9	-09.8	-25.2 Advanced	+36.1 Screw given 2 turns to A.	+0.5
Sep 26	12	-01.9	-00.1 Reset	-16.5	+14.2	+0.5

... reversal mirror about 15.30 ... lower already on.

... evening.

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Date 1939 Tuesday Sept. 26-27 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A B	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
5038	HD 172187	18 33.7	+43 08	I-12	Astra II	.010	52 13.1	18 46	19 16	3	
5039	174881	18 47.7	+28 39	"	"	"	5.2 13.0	19 20	20 30	4	
5040	181119	19 14.1	+30 50	"	"	"	5.1 13.0	20 13	21 13	1	
5041	196359	20 31.8	+44 03	"	"	"	5.1 13.0	21 17	22 27	2	

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
0 44 W	+43 10	0	6.40	A5	1-2-1	Binary
1 44 W	+28 42	0-1	7.43	K0	1-2-1	KSA 63
2 00 W	+30 55	0-1	6.48	A0	1-2-1	KSA 63
3 57 W	+44 12		7.51	F0	1-2-	40 Han Cancle 21^{57} — steadily mist, Callimon. 21^{42}
						Cleaning time, not tempted to open up at decent time, as it is very rapidly falling in solidly from the West. + L.

		MC	SC	SW	HT	ST
Sep. 27	12	-00·4	-00·4	-09·4	$+32^{s}\cdot2$	$+0^{m}\cdot3$

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Date Wed Sept 27-28, 1939 Mol-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
5042	HD 216756	22 50.4	36 33	I-12	extra I	0.10	3.0 11.1	10 41	11 11	3	4.26m
5043	B671	01 29.4	42 57	"	"	"	2.5 10.3	51 55	02 09	4	

Clearing uncertainly since 9.00

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Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
W 26m	36 46	2	6.34	F_2	1-2-1	Thick at 11.05 I think the galv. is on the blink again - Hd While closing dome - Turning went dead - relays don't work. - Hd note - dome chained at foot of steps.
						Closing late
	+3 05	2-3	6.58	F_8	1-2-1	Supp. light climb at 1.55 some clouds, thick at 2.09 closing, clear, more clouds.
						Checked on dome timing, works OK. Hand restart stops on RA stepping motor, has been giving trouble, seems OK now.

		MC	SC	SW	HT	ST
					°	m
Sep. 28	12	−01.3	−02.2	−00.1	+32.0	+0.3

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Date Thursday-Friday Sept 28-29 1939 M-Bs **Julian Day** 9535

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
							A B				
(5044)	HD 172187	18 33.7	+43 08	I-12	Nat. II	slit 010	6.3 14.6	18 42	19 00	1	
5044	HD 172187	"	"	"	"	"	6.2 14.1	21 32	22 18	2	54
5045	209149	21 56.1	+32 33	"	"	"	6.1 14.2	22 22	23 22	3	11
5046	223467	23 30.2	+38 10	"	"	"	6.2 10.9	23 28	00 28	4	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.5 14.6	00 [illegible]	01 [illegible]	1	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.5 [illegible]	0 [illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.4 14.1	03 [illegible]	[illegible]	[illegible]	
	Focus Test	Objective Adjustment									
		Friday - Sept	29-30	1939		M-Bs					
							cloudy with strong wind				

Very moist at sunset, outside of dome wet.
strong SE wind. Same day inside.

P 110

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	+43 10	1	6.4	A5	1-2-	Being Clouds almost from start. Comfortable Cold by 19[h]00
54 W	+43 10	1	6 40	A5	1-2-1	Pt. mag. + 13.8
36 W	+32 43	1-2	6 88	F5	1-2-1	K 5A 56
2 W	+63 20	3	6.91	A2	1-2-1	K 5A 19
2 W	+57 25	2-3	7 50	K2	1-2-1	[illegible] from 01
1 W	+57 05	2	6 87	F5	1-2-1	[illegible]
3 W	+46 15	2	7 0	F0	1-2-	5a + 5.2 [illegible]
					5/12	[illegible]

	M.C.		S W	M.T.$_s$	S.T.$_m$
Sep. 29	-02·0	-03·2	+09·6	+30·1	+0·3
Oct. 30	-01.0	-02.0	+21.0	+29.5	+0.3

Date Sat Sept 30-Oct 1, 1939 Hd-E Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
5050	η Lyrae	19 10.4	39 58	Schmidt	Super X	010	7.5	7.00 15-5	- 7.20 exp.	
5051	"	"	"	"	"	"	"	1m thro'	clouds	
5052	"	"	"	"	"	"		1m	exp.	
5053	mwc 336 HD 193009	20 12.9	32 04	"	"	"		7.29	7.49	7m
5054	HD 214946	22 36.7	44 39	I-12	Astra II	010	2.6 9.9	10 35	11 55	4 35
5055	HD 2905 Kcas	00 27.3	62 23	"	Astra IX	"	2.6 10.0	00 02		3
					Astra II		2.4 10.1	00 03	01	
5056	" 18, 04,	02 48	+47 5	"	"		2.5	02 03	03 23	
				"			2.4 10	03 11	04	
5059	" 40 143	05: 52.0	+45° 37				2.5 10.0	04 58	05	
	Focus Test	Outside thro' base		"		"	" "			

Property of the Harvard College Observatory

mopped water out of tubes 4/12
about 150 visitors. Neb showed
Ring neb with 74". Pleiades showed nebs,
Jup. moon. Sat ends ⊥.

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
		1	4.29	B3	2 filters 5	focus of Schmidt .820
					5	
					5	
7m	32 10	1	7.0	Bone	5	
1h 35	44 41	1	7.26	A5	1 filter 1-2-1	Light clouds.
	+62°54	2	4.00	B0	3-3	Spots 20s—no filters
		1-2	7.[illegible]	[illegible]	1-2-1	
		1-2	7.[illegible]	[illegible]	1-2-	
		[illegible]	7.[illegible]	[illegible]	[illegible]	
05	+43°16	1	6.60	A0	1-2-1	
					9/12	

Date Sun. Oct. 1-2 1939 B-L Julian Day 9538

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
5060	H.D. 177545	19 00.3	27 10	12½	Astra I	.10	3.9 12.1	18 58	20 16	1	13.1 W
5061	H.D. 201839	21 07.2	27 09	"	"	"	3.7 12.0	20 26	21 [illegible]	2	0.4
5062	H.D. 214557	22 33.9	45 19	"	"	"	3.5 11.6	21 08	23 13	3	1.6
5063	H.D. 1826	00 17.6	28 55	"	"	"	3.5 11.7	23 19	0 [illegible]	1	1.0
5064	H.D. 1636	00 15.5	15 21	"	"	"	3.6 11.7	00 03	00 [illegible]	4	
5065	H.D. 8710	01 20.3	43 11	"	"	"	3.5 11.7	0 [illegible]	01 [illegible]	2	
5066	H.D. 22114	03 [illegible]	31 41	"	"	"	3.5 11.7	01 [illegible]	01 [illegible]	3	
5067	H.D. 21844	03 [illegible]	47 36	"	"	"	3.5 11.7	02 [illegible]	03 14	4	
5068	H.D. 21467	04 [illegible]	27 35	"	"	"	3.5 11.7	01 [illegible]	03 [illegible]	1	
5069	H.D. 33006	04 [illegible]	12 29	"	"	"	3.5 11.7	04 05	04 30	2	
5070	H.D. 36152	05 [illegible]	15 17	"	"	"	3.5 11.7	05 03	05 19	3	

Orion 11.9

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
1 37 W	27° 13	1-2	7.03	B_9	1-2-1	Some trouble with lead. Star partially
1 09 W	27° 18	2-3	7.56	A_0	1-2-1	obscured for 15 min.
1 01 W	45° 20	3	7.57	F_8	1-2-1	Super.
0 53 W	45 16	3	7.00	A_5	1-2-1	Rim
0 30 W	32 34	3	7.15	K_5	1-2-1	ESC
0 03 W	45 43	3	7.27	F_2	1-2-1	Sup
0 15 E	31 48	3-2	6.90	F_2	1-2-1	Rim [illegible]
0 39 W	47 43	3	6.97	F_0	1-2-1	Sup [illegible] HD 15149 [illegible]
0 [illegible] E	41 50	3	7.42	G_5	1-2-1	" [illegible]
0 53 E	12 20	3-2	7.31	F_3	1-2-1	"
1 15 W	15 18	3	5.84	A_2	1-2-1	"

		Mc	Sc	Sw	MT	ST
Oct. 2	13	-01.8	-05.0	+41.6	+29.8	+0.1

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Date Monday, October 2-3, 1939 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
							A B				
5071	HD 172187	18 33.7	+43 08	I-12	A, L, II	.010	7.0 15.0	18 34	19 08	1	
5072	184602	19 30.2	+45 50	"	"	"	6.9 14.8	19 12	20 42	1	
5073	196359	20 31.8	+[illegible] 03	"	"	"	7.0 14.9	20 45	21 55	2	
5074	206482	21 37.3	+57 [illegible]	"	"	"	6.9 14.9	22 20	23 30	3	
5075	222514	23 36.2	+57 17	"	"	"	6.9 14.8	23 58	00 35	4	
5076	3A81	00 [illegible]	+59 [illegible]	"	"	"	6.8 14.9	00 [illegible]	02 [illegible] 3	1	
5077	21799	03 [illegible]	+57 32	"	"	"	6.8 14.9	02 [illegible]	03 45	2	
5078	2E124	04 [illegible]	+31 41	"	"	"	6.8 14.9	04 50	05 40	3	
5079	22621	03 32.2	+42 13	"	"	"	6.8 14.9	05 [illegible]	06 55	4	
5080	45504	04 22.7	+27 02	"	"	"	6.7 14.9	06 [illegible]	07 45	1	

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
1 00 W	+43 10	1	6.40	A5	1-2-1	Binary
1 37 W	+45 55	2	7.46	A2	1-2-1	KSA 39
1 48 W	+44 10	2	7.51	F0	1-2-1	KSA 40 ←*
2 18 W	+57 18	3	7.50	F5	1-2-1	KSA 15 ←* dbl 2" apart. Bright one
1 27 W	+67 03	3-2	7.22	A0	1-2-1	KSA 19
1 02 W	+50 33	3-2	7.45	A5	1-2-1	ASA 8
0 16 E	+71 37	3-2	6.85	F8	1-2-1	KSA 3
[illegible] W	+31 49	2	6.90	F8	1-2-1	[illegible]
[illegible] W	+41 47	2-3	7.51	G0	1-2-1	KSA 23
[illegible] E	+[illegible] 39	2-3	6.01	F5	1-2-1	KSA 20

		MC	SC	SW	MT_s	ST_m
Oct. 3	12	-01.9	-05.8	+09.0	+28.9	+0.3

←* Trouble I gave the optical observer to make adjustments.

Date Tues Oct 3-4, 1939 Hd-H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
5081	HD 175743	18 51.7	17 59	I·12	extra I	0.10	7.6 15.6	6 30	7.20	2	4.56m
5082	HD 187235	19 43.9	38 09	"	"	"	7.6	7 24	7.50	3	4.35m
	Annual visit for RHSC			H showed with 74"							
5083	HD 1826	00 17.6	28 55	"	"	"		11 18		4	
5084	MWC 0										
5085	MWC 63					M					
5090	MWC 89					M					
5087	MWC 39					M					

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
W 56m	18 00	1-2	6.79	K2	1-2-1	Clouds and haze
W 35m	38 15	1-2-1	5.67	B9	1-2-1	
						Brilliant aurora - Then much reduced at 11.
0 [illegible] W	29 05	1-2	7.00	A5	1-2-1	At 11.45 aurora very bright again streamers
1 [illegible] W	[illegible] 55	1-2	7.1	B8e	1-2-1	and curtains in N brilliant at lower
1 [illegible] W	50 20	1-2	6.2	F3e	¾-1-¾	edges with oscillating motions across
2 [illegible] W	54 3	2	6.6	B8e	¾-1-¾	- reds and greens.
2 [illegible] W	48 17	2-1	8.1	B8e	¾-1-¾	Keep running to end of the night.

		MP	SC	SW	MT	ST
Oct 4	14	-02.0	-06.3	+61.5	+27.5	+0m.3

* See field sheet at end of book. It is in the envelope with other 5086 affairs to be mailed later - E.S.G.

Date Wed Oct 4-5, 1939 Hd-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
5088	HD 177599	19 00.3	15 38	I-12	Cramer I	010	~~9.5 16.5~~ ~~6.2 16.3~~	7 22 ~~6 31~~	8 12 7 21	1	~~41m 45s~~ ~~4m 13s~~
5089	HD 196687	20 33.9	42 38	"	"	"	8.5 16.3	8 17	9 17	2	4h 16m
5090	MWC 383 HD 209296	21 57.2	56 14	"	"	015M	8.4 16.0	9 25	10 35	3	4h 12m
5091	HD 223386	23 04.0	59 25	"	"	010	8.2 15.9	10 41	11 21	4	4h 10m
5092	HD 5813	00 54.6	57 50	"	"	"	15	11 25	12 55	1	
5093	BD 61	01 20.4	62 54	"	"	"		01	02	2	

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
~~W1h45m~~	~~15 37~~	2	6.84	A0	1-2-1	Sugg. neglected to draw slide!
W1h16	42 45	3-2	7.06	A0	1-2-1	Sugg.
W1h12	56 24	3	8.1	B(5)e	1-1-1	Increasing haziness
W10m	59 37	3	8.38	A0	1-2-1	
0°33 W	58 01	2-3	7.23	A3	1-2-1	Hazy
1°16 W	43 07	2-3	5.58	F8	1-2-1	Haze starting thick at E Sky remaining murky thick Closed at 3:12

Date Thursday Intl. 5-6, 1939 H-B Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time ~~E.S.T.~~	Ending Time ~~E.S.T.~~		Hour Angle End
						slit	A B				
5094	HD 218525	23 13 6	+44 01	I-12	A-1-II	c10	11.0 18.8	23 33	0 03	3	.58
5095	222642	23 37 3	+44 13	"			11.1 18.8	0 06	1 35	4	1.9
5096	22124	23 25.5	+31 41	"			11.1 18.9	2 01	3 25	1	
5097	20367	23 11.5	+30 46	"			12.3 23.9	3 39	6 00	2	

Clouds early evening.
Stringers of Clouds stopped. Used Ed. wted.

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
0 53 W	+44 14	1	6.36	A0	1-2-1	K S A 42
1 47 W	+44 25	1	7.18	F0	1-2-1	K S A 43
0 05 E	31 50	2-1	6.70	F2	1-2-1	
2 40 W	30 55	1	7.09	G0	1-2-1	

		MC	SC	SW	MT	S.T.
Sep. 6	12	-02.6	-07.1	-44.8 Reset	-11.4 Reset	-0.2
Sept 7	10	-02.5	-05.7	-37.7	-12.5	-0.2

Date July, Oct, 6-7, 1939 M-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	
5078	HD 196391	20 16.2	+33 37	1-12	a,f,s	.020	19.6	+17.8	18 52	21 02	4
5099	221700	23 29.3	+07 22	—	—	—	19.6	+17.6	21 08	[illegible]	1
5100	5944	00 55.8	57 17	—	—	.010	[illegible]	[illegible]	[illegible]	1 17	2
5101	22124	3 22.8	+31 41	—	—	—	[illegible]	[illegible]	1 23	3 [illegible]	3

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
26 W	33 42	2-1	8.6	A	½, 1, ½	
	07 34	2	9.2	A2	½, 1, ½	
00 W	57 29	2	6.0	A2	1-2-1	
	31 48	1	6.0	F2	1-2-1	Y Seeing poor - 1.3c. Thick clouds 1.5c - 2.1c

		MC	SC	SW	MT	ST
Sep. 7	10	-02.5	-05.7	-37.7	-12.5 s	-0.2 m

Date Saturday, Oct 7-8, 1939 M—T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A° B°	Starting Time E.S.T.	Ending Time E.S.T.	
5102	HD 182010	19 17.6	+17 34	I — 12	Ast II	.010	+6.7 +5.0	18 25	17 15	4
					Tried various objects with visitors					
			M 27 - Dumb-bell		NG		M2 fine night			
			HVII 7 Ducatus		—		NG	HVII 30 Cass. fairly		
5103	222416	23 35	44 31	—	—	—	+16.0 +13.7	22 25	0 32	1
5104	6697	1 52.4	57 44	—	—	—	5° 0°	0 55	1 35	2

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
0 41 W	17 37	2	6.84	A0	1-2-1	
getting better than M13 and field starting		α 23 53 0		δ +56 22		Start 120 meter. Moved M2 and B Cygni with 74 inch Takahashi finder. Saturn with 4-inch. Pointing of 13.68
1 47 W	44 43	2	7.45	B9	1-2-1	[illegible]
1 16 W	57 55	2	7.6	B1	1-2-1	Trouble with dampers. Heavy fog on dome/mirror. Clears 2 30 -

Date Sunday, Oct 8-9, 1939 E Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
~~5105~~	HD. 210170	22.039	11 04	1-½	2nd-II	.010	59 1:1	21 [illegible]		

Sunday Oct 9-10 1939 M-L

Sky very hazy after sunset.
3rd mag. stars hardly visible in zenith.
Saw no Draconids from about 19.50 - 20.10. Left,
clouded over completely. Left at 23.15.

Monday Oct 10-11, 1939 M-L

Clouds with showers; [illegible] at 21[illegible] for [illegible]
got all good. [illegible] minutes left.

Wed Oct 11 ~~-~~ 1939 ~~H-L~~ I 12 hours was 26.1[illegible]

5104F	Venus			I-25	ordinary	010	46	12.6		3
5104T	Test	Hour Tuesday								

Clouds in early evening. Partially clear at 10, but with a strong wind, dew wet! Opened at 7:30

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Hour Angle End	Declination	Seeing	Ptg. Mag.		
	+7.15	1	6.7	Ao	tr

REMARKS

Cloudy at 10:00 Cleared at 11:00
Put blower on.

		MC	SC	SW	MT	ST
Oct. 9	10	-02.5	-06.0	-20.0	-13.5	-0.3

		MC	SC	SW	MT	ST
Oct. 10	12	-02.9	-05.4	-09.9	-15.2	-0.2
Oct. 11	12	-02.3	-05.1	+00.4	-17.2	-0.2

Tel 20.21 Changed to I-25

Latitude Thumbscrew Tel 23.15
" " " wt 1 - 23.3 ← good (at 3:00 a.m. 17 Dec 21 in Rain)
" " " " 6 - 23.5
" " " " 9 - 23.7

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Date Wind test 11-12, 1939 Hd. L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Ang End
- 5105	η Lyrae HD 180163	19 10.4	39 03	I·25	Extra I	0·0	5.4 13.6	6 18	6 30	1
							6	6 30	6 42	
								6 42	6 54	
- 5106							6.0 14.0	6 55	7 07	
								7 07	7 19	
								7 19	7 31	
- 5107							6.0 13.9	7 32	7 44	3
								7 44	7 56	
								7 56	8 08	
- 5108							6.0 13.9	8 09	8 21	4
								8 21	8 33	
								8 33	8 45	
- 5109	HD 212444	21 10.8	37 37	"	Process	0·10	6.0 13.7	8 52	9 04	1
	- 5110 49	02 10.8	66 57	"	"	"	6.0 13.8	11 02	11 38	
	HD 12445-7	01 55.9	70.2 17				5.9 13.7	11 45	11 57	

printer at 13.7

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
		1	4.29	B3	7-7 (filter)	set 1
					7-7	set 6
					7-7	" 9
					7-7	" 1
					7-7	" 6
	37 02				7-7	" 9
					7-7	" 1
					7-7	" 6
					7-7	" 9
					7-7	" 1
					7-7	" 6
W 2h 35		1			7-7	" 9
W 1h 21	37 46	2	4.16	Fc	10-10 (no filter)	set 1
0h E	67 06		4.6	A5p	10-10	" 6 Can see a comp 3 about 2m west to 1st donut
0h W	107 69		3.9	[illegible]	10-10	" 9 clouds
(over)						

Date Wed Sat 11-12 1939 (Cont'd) Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle End
- 5110	K Cas HD 2905	00 27.3	62 23	I-25	Process	010	6.0 13.9	9 49	10 04	2	
	"	"	"	"	"	"	5.1 13.8	01 54	02 10		
- 5111	5 Cas HD 5328	00 50.7	60 11	"	Process	"	5.9 13.9	10 39	10 41	3	
								10 42	10 46		
								10 47	10 55		
- 5112	9 Cas HD 7650	01 05.5	71 02	"	Process	"	5.8 13.8	02 50	02 40	4	
	114 Tau. HD 23408	03 41.6	24 31	"	"	"	5.9 13.8	02 43	04 00		

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
00 57m	62 33	2	4.0	Bo	10-10	Set 1
41 W	62 35	3	"	"	10-10	" 6
	60 22	2	2.25	Bop	20	Set 1 Slide not fully drawn?
					20	" 6
2 56m					20	" 9
99 E	41 02	2	311	B2	10-10	Set 1
" E	21 52	2	466	B2	10-10	" 6

clouds

	MC	MT	ST	SC
Oct 12 ..	-2.0	-12.5	-0.2	-1.4
			+ 0.5	7.6

Date Thurs Oct 12-13, 1939 Hal. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
- 5113	η Cygnus HD. 186163	19 10 4	38 57	I-25	Ilford I	0.10	3.0 11.0	8 39	8 55	1
								8 55	9 11	
								9 11	9 21	
- 5114	42 Cygni HD + 185949	20 40 5	47 41	-	-	0.10	0.5 9.0	3 25	4 25	2
								4 25	4 41	
							0.5 8.0	4 47	5 07	
- 5115	"							5 07	5 25	3
								5 42	5 51	
								5 51		
			Friday Oct 13-14, M							
			Rain all evening							

Partly Clear at intervals from 7.00

13K

set pointer 11.3

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
		0	4.29	B3	7-7	Set 1
	37 03	0			7-7	" 6
W 3½ 15					7-7	" 9 Clouds - slight rain before dark clear
	67 32	2-1	45	B3	7-7	Set 6 Clear again 11.00 but mostly cloudy
					7-7	Set 9 11.10 to 11.40 — gave up. Hal
W 3 E					7-7	Set Clouds mostly to hide up Point 9.15
		2	-	-	7-7	Set 11 Had trouble with time tuning switch
					7-7	Set 13 Obs: 3 x 5 = 51, 363-420
17 W		2-1	-	-	7-7	

	M.C.	S.C.	SW	HT_s	ST_m
Oct. 13	-02.3	-04.8	+19.7	-20.4	+0.8

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M-

Date Friday Oct. 13-14 1939 B Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Ang End
5116	H.D. 16855	02 37.1	43 07	25	Eastman II	.010	-0.2 5.0	1 38	1 45	
5117	H.D. 16924	02 38.5	31 41	"	"	"	0.1 5.0	3 14	3 45	
				Sat Oct 14/39 Hd						
				Changed F I-12						
5116F	Focus			I-12	Eastman I	.010	-2.2			1

Return

Pointer at 9.1

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
1 [illegible] W	+3 15	[illegible]	6.72	A2	7-7	supp. Image very variable.
2 32 W	2 50	"	6.90	F2	7-7	Bin Sandy from 40°.6 to 40°.5
						MC SC SW MT ST
						Set. 14 10 -02.1 -04.6 +30.6 -21.8 +0.8
Outside Thurlow, Tel 20.21					10/10	Set 1 Focus 26.15
						" 6 double exposure ← about 26.22 not used
						" 9 Focus 26.25 ✓

Date Saturday, October 14-15, 1937 H.T. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		
						ET	A B				
5117	HD 172187	18 33.7	+43 08	I-12	Ac. II	010	-2.2 6.0	18 15	17 47	4	
5118	HD 5526	00 52	+45 18	"	"	"	-3.5 5.0	23 44	0 44	1	
5119	11884	1 51.7	+46 36	"	"	"	-3.5 5.0	00 46	1 00	2	
5120	27521	3 32.2	+42 13	"	"	"	-3.5 5.0	2 03	(+ 30)	3	

Clouds + light rain + snow moved off during day. Clearing again after sunset.
Temp set 26.3 with filing out.

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Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
1 24 W	+43 10	2	6.40	A5	1-2-1	* Light clouds, thick in N.
	Dist 195'	visitors.	Cloudy.	Halo	around	Light; T stratus; T strato-cirrus; fairly clear 9-10. Halo around Jupiter.
1 04 W		2	7.24	K0	1-2-1	* K.S.A 20 Brilliant auroral curtain. Very hazy.
1 19 W	+6 45	2-3	7.53	K0	1-2-1	*
	4 - 19	2-3	7.51	G0	1-2-1	* Clouds 230 - Still Cloudy 430 - clear.
						* Dist. 4 gal. [illegible]

Date Sunday Oct 15-16 B-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5121	H.D. 18[illegible]77	19 54.6	91 59	12½	Eder II	1.1	-0.9 +7.5	18 [illegible]	19 [illegible]	1
5122	H.D. 19[illegible]57	20 58.2	97 53	"	"	"	-0.? +7.8	19 [illegible]	20 [illegible]	2
5123	H.D. [illegible]3	21 [illegible]	30 33	"	"	"	-0.? +7.?	20 17	21 [illegible]	1
5124	H.D. 21[illegible]8	22 57.7	02 04	"	"	"	-0.? +7.?	21 04	21 [illegible]	4
5125	H.D. 21[illegible]99	23 17.8	30 29	"	"	"	-0.? +7.?	22 01	23 05	3
5126	H.D. 12[illegible]92	01 38.7	-19 35	"	"	"	-0.? +7.5	23 [illegible]	0[illegible]	1
5127	H.D. [illegible]801	02 039	[illegible] 45	"	"	"	-0.? +7.6	0[illegible]	01 [illegible]	2
5128	H.D. 30[illegible]39	03 09C	32 20	"	"	"	-0.? +7.6	02 00	0[illegible]	2
5129	H.D. 35761	05 219	40 12	"	"	"	-0.? +7.6	03 [illegible]	03 [illegible]	2
5130	H.D. [illegible]384	06 [illegible]	45 57	"	"	"	-0.? +7.6	04 01	04 [illegible]	4
5131	H.D. 42804	07 335	33 34	"	"	"	-0.? +7.6	04 38	05 [illegible]	1

Sunday Oct 16-17, 1937 M

Light clouds after sunset. Clear [illegible]

Time Oct 17-18 Hd-L Clouding up at sunset. From 9.30 on partly clear at times.

Pointing at 27.9

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
0 31 W	42 05	2-3	6.54	A_2	1-2-1	Lupo
0 35 W	42 01	3	7.23	A_5	1-2-1	Lupo
1 33 W	30 42	3	7.56	A_0	1-2-1	Lupo Sunset light on mtn plate too wh...? vc?
0 39 W	2 90	3	6.96	K_0	1-2-1	B.S.
1 28 W	30 41	3	7.00	F_0	1-2-1	Lupo at 23.50
0 19 E	-1 29	2	6.97	K_0	1-2-1	BSC [illegible]
1 00 W	15 56	2	6.85	F_5	1-2-1	Lupo Bright [illegible]
0 42 W	32 57	2-3	6.62	F_0	1-2-1	" " " "
0 12 E	42 12	3	7.50	G_5	1-2-1	" [illegible]
0 17 E	45 42	3-2	7.48	K_0	1-2-1	" [illegible]
0 40 E	34 [illegible]	2	7.07	K_5	1-2-1	BSC

Last heavy clouds came in from N.W. [illegible]

	MC	SC	SW	HT	ST
Oct. 16	12h −0.5m	−04.2	−06.7	−21.4	+0.7m
Oct. 17	12h +0.4	−04.2	adv. 1m +05.7	−25.7	+0.5m
Oct. 18	12h +1.0	−04.7	+14.4	−28.5	+0.6m
Oct. 19	12h +1.3	−05.1		−31.2	+0.6

Date Thursday, Oct 19-20, 1929 I-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5132	HD 1826	00 17.6	+28 55	I-12	Astr. II	010	60 14.0	21 42	22 26	2
5133	224380	23 52.3	+47 43	"	"	"	6.0 14.0	22 25	22 46	3
5134	9800	01 30.7	+47 49	"	"	"	6. 14.	22 49	0 05	4
5135	1826	00 17.6	+28 55	"	"	"	6.0 14.0	1	1	1
5136	[illegible]	[illegible]	[illegible]	"	"	"	6.0 14.0	1 50	[illegible]	2
5137	36259	05 29.6	27 36	"	"	"	6.0 14.0	2 55	3 15	3
5138	+5192	21.0	32 38	"	"	"	6.0 14.0	4 55	5 [illegible]	4

MIRROR RESILVERED, Monday, Oct. 18. Oct. 19 P.M. six adjust thrust guiding pins on mirror were adjusted. Light kept on around mirror. about 8:00 sky clearing, viewed terrific; no drifts on mirror, but central 25ft diameter was fogged. Seemed to be clearing, but closed for part of hour for a while.

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
0 18 E	+29 [illegible]	1-2	7.00	A5	1-2-1	Light haze for part of time.
0 24 W	+47 54	2	7.46	A0	1-2-1	
0 58 W	+47 58	2	7.54	F0	1-2-1	
2 59 W	+24 05	2-1	7.00	A5	1-2-1	
0 45 W	+2 10	2	7.51	G0	1-2-1	
0 24 E	27 36	2	7.47	K0	1-2-1	Moddy [illegible] +45
1 45 W	-32 34	2	7.43	K0	1-2-1	Trailed with [illegible] Red on blower.

		HC	SC	SW	MT	ST
Oct 20	12	+02.5	-05.3	—	-32.7	+0°6

Date Friday Oct 20-21, 1939 M-B Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	
-5139	BD 26° 3896	20 21.6	27 02	I-12	Astra II	.020L	6.5	+14.6	18 31	21 03	1
-5140	HD 221700	23 23	27 22	—	—	—	6.5	14.7	21 10	23 40	2
5141	22129	3 25.3	31 11	—	—	1010L	6.7	15.0	23 49	0 55	3
5142	20500	3 12.8	12 28	—	—	—	6.7	15.0	1 35	4 10	4

Left Pointer at 12.15 at 11. Final pointer

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
5:	2 16W	27 08	1	88		½-1½-½
1	1 45W	07 34	1	92	A2	½-1-½ Line Timing on Est. not Pole, required
5	0 5E	31 48	2	690	F2	1-2-1
1	2 33W	12 35	1	7.59	B8	1-2-1 Cloudy, 1st-2nd; 3rd-5th; 4th—

Left Mountain at 12.38

		MC	SC	MT	S.T.
Oct. 21	12	+03.5	-05.7	+21.8	-0m.1
				~~Oct.~~ .1m	Rest

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Date Sat Oct 21-22, 1939 H.L.-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5143	HD18040	2 45 8	47 56	I-12	[illegible] II	101 2	4.6 11.8	1 43 -35	3 03	1
5144	29224	4 31.0	+27 43	"	"	"	4.6 11.5	3 07	4 37	2
5145	46641	6 29 4	+32 22	"	"	"	4.6 11.7	4 40	6 40	3
	Sunday Oct 22-23 B					Cloudy [illegible]				

Cloudy, Bluff. Wind 12 mi/hr. Hit bottom with
T'shower 7P.

Cleared quickly 1 15

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
1 53 W	+48 05	1	726	A2	1-2-1	Set on star with star switch.
1 46 W	37 46	1	738	A0	1-2-1	
1 11 W	32 19	2-1	729	A2	1-2-1	Guiding with star switch

		MC	SC	SW	MT	ST
Oct. 23	12	+05.0	-06.7	+06.8 Reset	+20^{s}.2	+0^{m}.0

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Date Sunday Oct 23-24 1937 M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5146	HD 193637	20 16.2	+33 37	I. – 12.	Ra I	.020L		18 23		4

Sept Sunset Z = 25 72

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
		33 42	1	86	A	½ 1	Double with one tracing of Leo. Some cirrus ~~with~~ Yucca Mountain with it but not right yet. Clouds gone up leaving from NE at about 1950 Took a set of star fields with the R.A. clamp. Set Dec declination back to zero. Removed Tube - closed up at about 22 15 Put on Shroud
							Spotty clouds at midnight, some ~~to~~ open at 12 12. Big clouds ~~to~~ in N until 1 30 then ~~to~~ unsettled, patchy cirrus till 3 30 but heavy haze & clouds in N

Date Tuesday, October 24-25, 1939 H-L **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
							A B			
5147	HD 172187	18 33.7	+43 08	I-12	Actin II	010	5.4 -10	17 56	18 26	1
5148	184602	19 30.2	+45 50	"	"	"	5.4 -28	18 29	19 59	2
5149	214558	22 33.9	+41 40	"	"	"	5.2 -30	20 03	21 43	3
5150	217648	22 57.4	+47 34	"	"	"		20 49	22 48	4
	Wed Oct 25-26/39			H-L			Rain all night			
	Thurs October 26-27/39			H-T			Hazy fog all night			
	Fri Oct 27-28/39			H-B			Telescope wet - clouds all night			

Sept 25-7

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
						Binary MC SC SW MT ST
1 34 W	+43 08	0	6.40	A5	1-2-1	Oct 24 16 +06.3 -07.2 +19.9 +18.6 +0.0
2 2 W	+45 53	1	7.46	A2	1-2-1	KSA 39
0 31 W	+44 51	1-2	6.95	F8	1-2-1	KSA 42 Light clouds after moist.
1 42 W	+47 37	2	7.50	A0	1-2-1	KSA 42 Clouds thin but mostly [illegible] 20[55]-2[10] Starting 21[00] Stopped 22[15] Seeing very variable [illegible] Clear [illegible] very windy [illegible] [illegible] 1.30 [illegible] Closed down 2[30] Stopped.
						Oct 25 12 +07.3 -07.5 +29.7 +17.8 +0.0
						Oct 26 10 +07.2 -08.0 +29.3 +15.2 0.0
						Oct 27 14 +08.7 -08.5 +51.5 +13.2 0.0
						Oct 28 10 +09.5 -08.9 +58.1 +10.5 +0.1

Date Sunday Oct 29 1939 M-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.

Sunday - Oct 29

① Dec O Motion Motor - pinion clamp partly on and stalled. When this was turned Dec G M motor ok.

② P H clamp went ok when started by hand. Thereafter seemed to give no trouble

3 Tried out heating galvanometer - appears ok

④ Tried Dome Turning went without hitch

5 Circle lights appear shielded - let them go for present.

Longwith YY.

P.S. Sky cloudy at evening, clearing from 11.15 to midnight. Started to open then decided to wait, sky had partially opened by 12.00. Still thick at 2.55 Mon. Oct. 30/31 H.L. Rain + clouds most of night. P.M. Sky [illegible] to open, but left [illegible] at 11 p.m.

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
				Found [illegible] in hole & [illegible] but [illegible]
				Star tests in room. Used it out. Cloudy most of time. [illegible] 20.0 hr
				Put the usual hole of entrance about 15 [illegible] in center piece
				Set 120 meters. Motored just to keep clouds with 74"
				T " Saturn and Moon with 4"

1. R.A. clamp didn't work at all
2. Lights in circle.
3. Dec. slow very uncertain all evening
4. Dec. & R.A. tangent screws to work at end of evening. Loosed 4 screws with rope and pulled it down. Clutch Dec. screws all 8 & Pinet Dec. clamp & tighten with key. Put clamp on tight.

Thick Clouds - Last shot 23.20.

P.T. Hours on. Stored water.

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Date Tues Oct 31 - Nov 1, 1939 Hd - C Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
5151	HD 18376	00 17.6	28 55	I-12	Extra II	0.10	-1.6 +6.4	9 23	10 33 1
5152	HD 9312	01 26.6	16 28	"	"	"	-1.8 +6.0	10 39	00 09 2

Pointer at 26.8 (Bad play out)

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Cloudy at sunset Clearing 8.40 – 9.00.

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
W 35m	29 05	1	7.00	A5	1-2-1	Clouds 4.50 HC 0.15 JC ⊃W MT ST
						Oct 30 12 +11.9 -10.0 +1 20.6 +10s.4 -0m.2
W 1h 01	16 37	1	7.59	G5	1-2-1	Clouds from 11.00 add 1m +20.6
						Oct. 31 12 +12.2 -10.4 ++ +06s.2 -0m.2
						Nov. 1 14 +14.2 -09.5 +04s.4 -0m.3

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Date Wed Nov 1-2, 1939 M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	
-5153	HD 193697	[illegible]	[illegible]	I-12	[illegible]	.020	-16	+16	18 03	20 23	3
-5154	BD. 63°1110	0 [illegible]	+63 33	—	—	—	-16	+16	20 35	23 35	4
5155	H.D. 21427	03 [illegible]	+39 08	"	"	.010	-16	+16	23 51	[illegible]	1
5156	" 21943	03 26.3	+39 19	"	"	"	-16	+16	01 53	01 [illegible]	2
5157	" 22124	03 [illegible]	+31 41	"	"	"	-16	+16	01 30	06 16	3

Pluto at 27 03

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
30 W	33 45	2-3	8·6	A	½ 1 ½	Thin cloud and haze at 3.45
08 W	63 44	3	9·1	—	½ 1 ½	Cloud over most of sky at 21 h
40 E	59 03	3	6·0	A0	1-2-1	Clear with good motion
03 W	27 21	1	5·93	A0	1-2-1	Clear, good exposure,
05 W	31 42	1-2	6·90	F2	1-2-1	Hazy, more cirrus, steady thickening up to 1.00, clearing at 1.50, light cirrus thick again at 2.20 Cloud clearing at 3.45, still thick at 4.30

	MC	SC	SW	MT	ST
Nov. 2, 10	+.4.4	−09.0		+04.4	−0.2

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Date Thurs Nov 2-3, 1939 Hd - T; Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5158	HD 216502	22 48.8	30 14	I-12	Astra II	0.10	-4.4 +3.5	7 20	11 00	4
5159	AD 9312	01 26.6	16 28	"	"	"	-4.6 +3.6	11 05	0 15	1
5160	32762	3 34.5	12 5 37	"	"	"	-4.6 +3.6	0 22	1 22	2
5161	22124	3 28.3	2 1 41	"	"	"	-4.7 +3.5	1 36	2 20	3
5162	37647	5 30.0	29 27	"	"	"	-4.7 3.5	2 37	4 07	4
5163	46641	6 29.4	5 12	"	"	"		4 14		

clouding at sunset. clearing 8.30 – 9.00

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pointer at 24.5°

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
W 2h 37	30 25	1	7.52	A2	1-2-1	image rocking for 7!
W 1 15	16 35	1	7.59	G5	1-2-1	Double-Tooth on both ends. Tracked with RA clamp. Centered spherically at end of run.
W 0 14	28 34	1	6.6c	A0	1-2-1	
W 1 28	31 45	1-2	6.9c	F2	1-2-1	
W 1 02	29 28	1-0	7.45	A	1-2-1	
	32 12		7.4	A2	1-3	Double-Tooth on both ends. Tracked with RA clamp. Centered spherically at end of run. Still cloudy, 6 oc.

		MC	SC	MT	ST
7h00m.3	12	+16.9	-09.2	+06.5	-0m.3

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Date Eve. Jan 3-4, 1939, M-B Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
- 5164	BD 56° 2640	21 43.1	+56 28	3 - 12	40 Fin II	.020 M	-5 +26	17 59	21 01	2
5165	HD 8862	1 22.3	43 32	—	—	.010 L	-6.0 +25	22 2[illegible]	22 35	3
5166	21541	3 23.4	41 39	—	—	—	-6.0 +25	23 01	23 [illegible]	4
5167	28159	4 24.2	32 14	—	—	—	-6.1 +15	00 13	[illegible]	1
5168	36104	5 26.9	12 02	—	—	—	-[illegible] +1.3	00 [illegible]	[illegible]	2
5169	37366	5 33.0	30 50	—	—	—	-6.0 +25	01 [illegible]	[illegible]	4
- 5170	BDE 1702	6 29.3	6 54	—	—	.020 L	-[illegible] +25	03 [illegible]	[illegible]	3

Pointed at 23.18

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
:	1 44 W	+56 36	3	7.0		½-1-½	Guide cam. left from N just at end of exposure. Sky stuck for some time. Cleared again.
:	0 03 W	43 42	3-5	6.54	B9	1-2-1	
:	5 20 E	14 46	3-4	7.32	A0	1-2-1	
:	1 22 E	32 18	3	6.17	B9	1-2-1	Drive not working well.
	1 53 E	12 03	3	6.25	B8	1-2-1	
	2 22 E	30 50	3	7.40	B5	1-2-1	
	2 13 W	8 50	2	8.15	A	1-2-1	Had trouble setting on [illegible] star. Clamps would not clamp on. Also the clock slipped [illegible]. Almost an hour slow for [illegible]

Date Saturday, November 4-5, 1899 H-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5171	HD 190323	19 59.3	+14 42	I-12	Acta II	2.5 C10	-8.2 -5.2	17 55	19 05	1
5172	Zirconium	23 23.9	+45 16	"	"	"		17 18	19 58	2
	Sunday Nov. 5-6			B-L	Cloudy					
	Monday, Nov 6-7			M	Cloudy all evening					

Clouds much of afternoon; clearing shortly after sunset 0h.

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Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
1 40 W	+14 47	2	7.36	F8 f	1-2-1	1.5 A 88
	-48 27	3-4	8-11	P	1-2-1	Very Bad? 20[25] 20[35]
						Clouds @ 21[45]. Heavily overcast the half.

		MC	SC	SW	MT	ST
Nov. 6	10	+21.8	-09.6	-03.7 Reset	+09[s].0	-0[m].2

Date Monday December 6-7, 1939 M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5173	H.D. 36154	05 24.2	+12 42	I - 12½	Astro II	Set .010	A. -3.3 B. +4.8	0h 25	01 45	3

Tuesday December 7-8, 1939 M-L

Cloudy and rain all evening

Park set at 25.12

Hour Angle End	Declination	Seeing	Ptg. Mag.		Comp	REMARKS
		0-1	C20	B	1-2	Clearing some time after midnight. Opened up. Seeing took if clouds rolling up very quickly shut up off at 1.45 Cloud lifted 3.30 still thick.

		MC	SC	HT	ST
Nov. 7	12	+25.4	−10.0	+06.4	−0.2
		added 0.3 to pendulum			
Nov. 8	15	+24.5	−11.0	+04.8	−0.3

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Date Wed Nov 8-9, 1939 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
~~5173~~ T										
~~5174~~	40 17921 8	19 06.6	15 37	I-12	extra VIII	020	-2.5 +5.4	5 50		3
~~5174~~	~~40 2734~~	~~00 25.8~~	~~43 24~~	I-12	extra II	020	—	8 36	—	4

Thursday Nov 9-10, 1939 H-T Cloudy all evening.

M, N + T Cal standards Comas of Ida

at

Friday Nov 10-11, 1939 H-B

rain all evening - occasional clearing.

Set Nov 11 - to phase Omicron -

Tlk [illegible]

"Squall-line" weather all day. Sudden showers. Partly clear at moment

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	Photo 1m no filter		7.13	B9	2-	Thick at 8.00. Danger of showers. Cloud dome.
			6.59	B8	1-	Snowing at 9.00 - closed again! Snowing unmistakably till 12.00 Lifted for 1.00 - 12.30 clearing. Shake for 1 exp., clouds rolling up from West. Shake again at 1.30 Lifted for 1.30 - 2.00 snowing at 2.30 Shut shak at 3.30 gave it up.

	MC	SC	SW	ST	MT
Nov. 9, 12	+25.5	-11.5		-0.3	+5.0
				MT	ST
Nov. 10 10	+27.8	-12.3	+09.9	+01.8	-0.4
11 10	+28.1	-12.7	+20.8	+00.4	-0.4

Date Sunday Nov. 12-13, 1939 B-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
	H.D. 210170	22 03.7	77 04	I-12	Astro II	.010	-6.0 2.5	19 38	
5174	H.D. 16727	02 35.8	54 41	I-12	Astro II	.010	-6.5 +1.8	23 38	23 54
5175	" 20346	03 11.3	33 56	"	"	"		00 08	00 46
	" 26311	04 04.6	32 19	"	"	"		00 53	
					12-14, 1939		1-L		
	Sky Exp. Begun. Light Screen used evening. Part hazy								
	10 sec. exp. Stars failed in Eyepiece, and night hazy, ended 11:50								

Snow early part of evening
Pointer at 23.4

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	7 14	0	6.94	Ao	1-	Completely cloudy by 9h 20m
						Cloud again at 10-, but soon
∂ 23	54 50	2	5.61	B8	1-2-1	started to clear again.
C 40 W	39 05	C	5.97	Ao	1-2-1	BSC
		0-1	6.91	Ko	1-	BSC Trade delayed starting; stuck 5 min. after starting, drawing 12 min. late. Sky remaining mostly clear with drifting cloud at 5h and 9h. Cloud at 5h still drifting at 10h 40m.

		MC	SC	ST	MT	ST
Nov. 13	10	+31·2 added wt. of 0·2	-00·6	-09·0 adv 1m	-07·8	-0m5

Date Sept. 13-14 1932 H.L. **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
						Set	A. F.			
5176	H.D. 23477	03 40.4	+43 46	I-12½	Astra II	010	-9.0 -0.7	01 35	02 15	1
5177	" 35802	05 22.2	+17 10	"	"	"	-9.0 -0.7	02 22	03 26	2
5178	" 59764	07 26.4	+12 53	"	"	"	-9.0 -0.7	03 32	04 44	3
5179	" 70843	08 19.1	+17 32	"	"	"	00 -0.7	04 49	05 29	4

Joint at at 22.56

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
1 44 W	+43 52	0	7.05	B_9	1-2-1	KSA 23 Fr. M. with apologies to Dr. Hagg. I
1 14 W	+17 10	0	7.22	K_5	1-2-1	KSA 73 thought it was Gilbert's night.
0 27 W	+12 46	0-1	7.37	G_5	1-2-1	KSA 75 Page
1 20 W	+17 20	0	7.46	F_5	1-2-1	KSA 76 Colton sh. and Page

		MC	SC	MT	ST
Nov. 14	12	+33.9	-13.0	-16.0	-0.6

Date Tues Nov 14-15, 1939 HA-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5180	HD179218	19 06.6	15 37	I-12	Astra VIII	020	-7.7 0.0	5 37	7 37	4
- 5181	MWC 402 HD223501	23 45.0	61 39	"	Astra II	015	-6.5 0.0	7 53	9 05	1
- 5182	MWC 23 HD 12302	1 55.6	59 12	"	"	"	-8.6 -0.3	9 11	10.21	2
- 5183	MWC 29 HD 13661	2 08.1	54 04	"	"	"	-8.6 0.0	10 27	00 07	3
- 5184	MWC [illegible] HD 2[illegible]	01 44.[illegible]	63 11	"	"	"	-8.6 -0.1	00 18	01 10	4
- 5185	MWC 53 HD [illegible]	04 10.1	45 38	"	"	"	-8.7 -0.2	01 39	03 49	1
- 5186	MWC 164 HD 12481	06 57.2	-11 09	"	"	.010	-8.7 -0.2	04 01	04 27	2
- 5187	MWC 139 HD 44637	06 17.7	13 09	"	"	.015	-8.7 -0.2	04 46	05 52	3
5188	HD 63532	07 [illegible]	14 19	"	"	.010	-8.8 -0.2	05 35	06 29	4

Pointer at 21.0

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Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
W $3^h 44^m$	15 40	2	7.13	Bg	2,2,2	
W 33^m	61 50	3	8.2	B3e	1,1,1	
E 22^m	59 21	3	8.2	B3e	1,1,1	R.A. clamp not working at all tonight
1^{12} W	54 13	3	8.6	B(3)ne	1,1,1	Image drifting up (in dec) at all ranges
0^{45} W	63 17	3	8.1	B3e	1-1-1	and west component. N preceding.
2^{47} W	45 04	3	8.6	Bne	1-1-1	Wide double, after reading set on fainter
0^{53} W	-1 14	2	6.6	Bne	1-2-1	and tenths on reading to on slit.
2^{47} W	15 03	2-3	7.7	Bne	1-1-1	
1^{37} W	1 03	2-3	6.54	A5	1-2-1	KSA 76

		M.C.	S C	M T$_s$	S T
Nov. 15	12	+34.1 added 1.2	-13.4	-20.2	$-0^m.7$

Date Wednesday Nov 15-16, 1927 M-L **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A / b	Starting Time E.S.T.	Ending Time E.S.T.	
- 5189	HD. 219113	23 8.3	+2 08	I - 12	[illegible]	.020 L	-6.1 +2.3	18 13	21 13	1
5190	5704	0 34.2	47 29	–	–	.010 L	-6.3 +2.3	21 21	22 05	2
5191	15876	2 57.1	62 38	–	–	–	-6.3 +2.1	22 13	23 43	3
5192	21641	3 24.5	47 31	–	–	–	-6.4 +2.0	23 47	00 29	4
5193	37566	5 33.0	36 50	"	"	"	-6.4 +2.0	00 36	01 36	1
- 5194	BD 8° 1408	06 [illegible]	10 34	"	"	.020 L	-6.4 +2.0	01 45	04 45	2
5195	HD 61950	[illegible]	14 36	"	"	.010 L	-6.4 +2.0	[illegible]	13	3
5196	72392	08 27.5	47 28	"	"	"	-6.4 +2.0	05 19	05 53	4
5197	76704	08 52.7	46 09	"	"	"	-6.4 +2.0	06 38	07 34	1

Temp (dome) -6.5° when started. Rose to
-6.1 near beginning of exposures and remained there.
Left 21.15. Did not get that on.

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
18	1 42 W	+ 2 20	2	9.0	G5	½-1-½	Clear but little hazy near horizon.
15	0 27 W	+47 40	3	6.95	B8	1-2-1	At 21.45 Temp 2.77 just before.
12	0 02 W	+12 45	2	7.37	B8	1-2-1	
9	0 31 W	+47 36	3	6.75	B9	1-2-1	
6	0 44 E	+20 51	3	7.40	B6	1-2-1	
3	1 34 W	+13 30	2-3	6.90	A	½-1-½	
0	0 25 W	+14 40	2-3	6.14	A0	1-2-1	
2	0 45 E	+17 18	3	6.62	A0	1-2-1	
5	0 10 W	+45 57	2-3	6.61	A0	1-2-1	

		MC	SC	MT	ST
Nov. 16	12	+34.3	-15.5	-23.7	-0.7

Date Thurs Nov 16-17, 1939 Hd - T? Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
							0.0 +8.0			
5198	HD 214588	22 34.2	44 09	I-12	extra H	0.10	+0.3 8.3	6 41	7 31	2
5199	219139	23 08.5	70 31	"	"	"	+0.3 8.5 +0.4 8.6	7 36	8 16	3
5200	3229	00 30.4	-01 04	"	"	"	+0.2 8.2	8 21	8 53	4
5201	1037	01 43.3	03 11	"	"	"	+0.3 8.1	8 57	9 31	1
5202	12573	01 58.1	-00 21	"	"	"	+0.2 8.1	9 36	9 56	2
5203	15279	02 27.1	-01 28	"	"	"	+0.1 8.0	10 00	10 32	3
5204	16400	02 32.7	-03 49	"	"	"	0.0 7.9	10 36	11 16	4
5205	21700	03 25.0	27 23	"	"	"	8.0	11 20	0 4[illegible]	1
5206	22124	03 28.8	31 41	"	"	"	-0.3 7.9	0 43	1 27	2
5207	24200	5 10.9	28 49	"	"	"	-0.2 8.0	1 31	2 3[illegible]	3
5208	33647	5 35.0	[illegible]	"	"	"	-0.3 8.0	2 44	3 58	4
[illegible]	59901	7 [illegible]	[illegible]	"	"	"	-0.2 8.0	4 [illegible]	5 [illegible]	1
[illegible]	7-778	[illegible]	[illegible]	"	"	"	-0.3 8.0	5 3[illegible]	6 [illegible]	2

at 5.10 found mirror fogged (Moon had been on mirror 1.30). Blowed dust from it & put heat on.
mirror Clear at 6.20.

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Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS Pointer at 27.8
√ 17m	44 21	2-1	7.01	A0	1-2-1	Suff. No heat on after observing a few
W 29m	10 43	1	6.94	K0	1-2-1	BSC
E 16m	-01 52	1	6.43	F8	1-2-1	BSC Put heat on at 8.40
E 51m	3 22	1	6.78	G5	1-2-1	"
E 40m	-00 12	2	5.70	A5	1-2-1	"
E 34m	-01 20	2	6.53	K0	1-2-1	"
W 5m	-03 40	1	6.84	K0	1-2-1	"
0 36 W	27 30	2	7.12	B9	1-2-1	Hoge.
1 20 W	21 98	2	6	F0	1-2-1	FoV Some scattered cloud.
2 41 W	25 45	2-1-2	7.17	F0	1-2-1	variable! eye
4 44 W	29 26	2-3	7.45	A	1-2-1	Faint [illegible] Wind [illegible] N [illegible] (Some cirro-N-3)
5 5 W	1 59	2-1	7.54	F0	1-2-1	- Haze [illegible]
6 16 W	4 49	1	7.04	A2	1-2-1	Variable haze - Fog [illegible]

	h	MC	SC	SW	MT_s	ST_m
Nov. 17	15	+36.6	-14.4	+40.6	-23.5	-0.8

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Date Friday, November 17-18, 1938 H.T. **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.		Hour Angle
						Set	A B				
5210	HD. 187640	19 45.9	+28 12	I-12	Eastman II	010	-2.0 +6.3	17 31	18 01	2	
5211	Zenith	23 28.9	+48 16	"	Eastman IX	020	-2.0 +6.2	18 03	22 07	1	
5212	HD 11484	01 51.7	+46 36	"	Eastman II	010	-2.1 +6.2	22 12	23 12	3	
5213	[illegible]	[illegible]	[illegible]	"	"	"	-2.1 +6.2	23 15	[illegible]	4	
5214	20477	3 10.5	+71 49	"	"	"	-2.1 +6.2	2 02	[illegible]	1	
5215	20367	3 11.5	+30 46	"	"	"	-2.1 +6.2	[illegible]	[illegible]	2	
5216	[illegible]	9 19.4	+57 08	"	"	"	+2.9 +4.9	[illegible]	[illegible]	4	
5217	[illegible]	9 32.2	56 41	"	"	"	[illegible]	[illegible]	[illegible]	3	

Saturday Nov 18-19 1938 M

Cloudy all morning

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
1 40 W	+27 16	1	6.24	B8	1-2-1	
2 05 W	+48 27	2-3-1	8.8?	Per.	2-2-2	
0 45 W	+46 46	1-2	7.5?	K0	1-2-1	
0 43 W	+48 17	2-3	7.5?	K0	1-2-1	
1 03 W	3 59	2	7.05	K0	1-2-1	
59 W	30 52	1	7.04	G0	1-2-1	
0 51 W	56 56	2-3	7.8	M0	1-2-1	
0 38 W	52 32	3	7.4	F2	1-2-1	

MC SC SW MT ST
Nov. 18 +37° −19.3 +49.7 −23° −0.9m

Date Sun. Nov. 19-20, 1939 B-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5218	H.D. 214557	22 33.9	45 19	12	Ilford II	.010	A B -4.2 +4.0	20 16	21 35	1
5219	H.D. 1826	00 17.6	25 55	"	"	"	-4.7 +4.0	21 41	23 00	2
5220	H.D. 19510	02 27.1	45 37	"	"	"	-4.5 +3.9	23 05	00 21	4
5221	H.D. 20137	04 34.0	29 47	"	"	"	-4.5 +4.0	00 27	01 51	1
5222	H.D. 31374	05 34.1	32 51	"	"	"	-4.5 +4.0	01 57	03 21	3
5223	H.D. 50364	06 47.9	10 37	"	"	"	-4.5 +4.0	03 26	04 45	4
5224	H.D. 73396	08 34.1	32 19	"	"	"	-4.5 +4.0	04 51	06 41	1
5225	H.D. 78366	09 08.7	34 10	"	"	"	-4.5 +4.0	06 44	08 14	2

Heavy clouds in early part of evening

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Quite at 7:1

ing Time S.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
35	2 35 W	45 30	1	7.57	F8	1-2-1	facing variable
15	2 15 W	29 05	1	7.00	A5	1-2-1	Binary
	1 24 W	46 06	1	7.11	A5	1-2-1	KSA 22
	0 50 W	29 49	0	7.20	F0	1-2-1	K.S.A. 48
	1 20 W	32 50	0-1	7.30	F8	1-2-1	KSA. 49
	1 31 W	45 55	1	7.48	K0	1-2-1	KSA 26
	0 40 W	32 08	0	6.48	F2	1-2-1	KSA 32
	1 05 W	34 07	0	6.45	F8	1-2-1	B.S.C.
							Rust
							Loc 26 12 MC +30 8 SC -14·9 SW +1 21·0 HT +20·0 ST

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Date Friday Oct 20-21, 1939, M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	
- 5226	HD 219113	23 8.5	+2 08	I - 12	[illegible] IIIa-J	.020 L	-8.6	+0.1	17 46	20 58	3
5227	14739	2 17.5	17 09	—	—	.010 L	-8.6	+0.0	21 04	22 25	4
5228	21541	3 23.4	14 39	—	—	—	-8.6	+0.0	22 32	00 02	1
5229	28354	04 23.2	27 15	"	"	"	-8.6	0.0	00 06	00 54	2
- 5230	BD 6° 1402	05 23.3	+06 54	"	"	.020 L	-8.6	0.0	01 02	04 02	3
5231	HD 74292	08 38.1	32 26	"	"	.010 L	-8.6	0.0	04 20	05 37	4
5232	80350	09 15.6	32 41	"	"	"	-8.6	0.0	05 23	07 32	1

Friday Night 21-22 1939 M-L Clear all night

to Gray about Rich Still at it in the morning

[illegible] of [illegible] and [illegible] at [illegible]
on Test in observing at 17h 10m
Finish at 21.35

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
27 W	+2 20	3	9.0	G5	½-1-½	[illegible] Tonight started hazy + hazy at 8h.
12 E	+17 18	2-3	7.32	A2	1-2-1	still hazy and cloud in S.
0 16 W	14 45	2	7.32	A0	1-2-1	haze and thin cloud with general
09 N	27 15	2	6.61	A0	1-2-1	K.S.A. 48 [illegible] end of exposure
1 11 W	03 49	2	8.95	A	½-1-½	haze, high clouds, thickening to S
0 34 N	32 14	2-1	6.90	A2	1-2-1	K.S.A. 52 haze.
5 N	[illegible]	2-1	6.58	A0	1-2-1	K.S.A. 63 haze

		MC	SC	SW	HT	ST
Nov. 21	12	+41.2	-15.2	+33.9	+26.3	-0.1
Nov. 22	12	+42.5	-15.0	+48.3	+22.6	-0.2

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Date Wednesday - Jan 22-23, 1937 M-L Julian Day -.36 +1.8

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	
- 5233	BD 63° 0110	0 48.6	63 33	I-12	Ilford II	.020L	-6.7	+1.6	18 59	22 45	2
5234	HD 20537	3 12.8	12 28	—	—	.010L	-7.0	+1.4	22 52	00 14	3
5235	[illegible]	04 35.0	[illegible]	"	"	"	-7.0	+1.4	00 19	00 37	—
5236	[illegible]	05 34.1	31 18	"	"	"	-7.0	+1.4	00 44	01 06	1
5237	[illegible]	06 09.8	13 [illegible]	"	"	"	-7.0	+1.5	01 11	01 33	2
- 5238	BD 6° 1401	06 20.3	+06 [illegible]	"	"	.020L	-7.0	+1.5	01 38	02 06	3

Pointer at 22.

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
1 42W	63 44	2	9.1		½-1-½	Cloudy at sunset, cleared later.
0 47 W	12 35	2-3	7.59	B8	1-2-1	K.S.A. 71
0 11 E	28 27	2-3	5.53	A0	1-2-1	KSA 48
0 43 E	31 18	2-3	5.91	B8	1-2-1	K.S.A 49
0 47 E	13 36	2-3	5.92	A2	1-2-1	KSA 74 Light haze.
2 23 W	+08 50	2-3	8.95	A	½-1-½	Haze, light clouds, thin, misty, cloudy a little later.

	MC	SC	SW	MT	ST
Nov. 23 12	+43.5	-15.6	+59.3	+22.5	-0.1m

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Date Thurs Nov 21-24, 1939 U-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5239	HD 9312	01 26.6	16 28	I-12	Extra II	0.10	+4.9 +3.4	10 27	11 27	4
5240	24701	03 50.5	13 02	"	"	"	+5.0 +3.1	11 32	0 30	1
5241	29224	4 31.0	27 43	"	"	"	+5.1 +3.1	0 33	1 53	2
5242	37647.5	5 [illegible]	24 29	"	"	"	+5.1 +3.1	1 56	(A<B)	3

mostly cloudy earlier. Opening
down at 7.30 but cloudy again.
Clearing from 10.00.

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ng Time S.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
17	W1h50	16 37	1-	759	G5	1-2-1	Moonlight following on morning
30	0 24W	03 06	1-2	720	A0	1-2-1	light clouds towards end
53	1 12W	29 47	1	738	A0	1-2-1	light clouds at times, high
8		29 25	1	745	A	1-2-1	Clouds 210-235 [illegible]

		MC	SC	SW	MT	ST
Nov. 24	12	+45·5	-15·4	+1 14·9	+18°0	-0m2

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Date Fri Nov 24-25, 1938 Hal. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5243	HD 1826	00 17.6	28 55	I-12	Tri-X	010	-8.0 +0.4	8 05	9 08	4
5244	9312	01 26.6	16 28	"	"	"	-8.2 +0.5	7 12	10 20	1
5245	18040	02 [illegible]	47 56	"	"	"	-8.0 +0.2	10 29	11 39	2
5246	24701	03 50.5	93 02	"	"	"	-8.2 +0.1	11 42	0 22	

ing Time S.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS Pointing 21.6
08 4	W 43m	29 05'	0	7.00	A5	1-2-1	
30 1	W 46m	16 36	0-1	7.59	G5	1-2-1	
39 2	W 43m	42 04	1	7.26	A2	1-2-1	Suffy. Set on preceding brighter comp's.
02	W 1.25	43 07	1	7.20	A0	1-2-1	Light clouds at 02.25 Heavy clouds at end of exposure, Closed at 02.00 Hit [illegible]

		MC	SC	SW	AT	ST
Nov 25	10	+46.1	-15.4	+124.7	+15.1	± 0m3

Date Saturday, Nov. 25-26, 1939 H-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour
						Slit	Δ			
5247	HD 20993	22 02.2	+44 46	I-12	Astr. II	010	-7.2 -.4	17 20	17 42	4
- 5248	Z And	23 29.9	+48 16	"	"	"	-7.2 +1.5	17 48	17 48	1
- 5249	"	"	"	"	Astr. IX	020	-7.2 +1.4	19 50	20 50	4
5250	HD 9312	01 26.6	+16 28	"	Astr. II	010	-7.3 -1.4	21 55	21 55	1
5251	9800	01 30.7	+47 49	"	"	"	-7.3 -1.4	23	23 10	2
5252	15579	02 25.3	+46 09	"	"	"	-7.3 +.5	23	0 14	3
5253	21970	3 31.9	75 24	"	"	"	-7 +1.4	0 10	0 58	4
5254	31590	4 52.0	73 55	"	"	"	-7 +1.8	1 02	1 18	1
5255	31851	4 48.3	61 36	"	"	"	-7.0 +1.5	1 22	2 28	2
5256	47731	6 36.0	02 18	"	"	"	-7 +1.4	2 32	3 48	3
5257	60406	7 29.2	61 45	"	"	"	-7 +.2	3 53	5 15	4
5258	61702	7 42.6	61 01	"	"	"	-7 +1.4	5 20	6 00	1
5259	94340	9 49.5	07 02	"	"	"	-7 +1.9	6 03	6 43	2
	Focus.									

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
1 24 E	+44 56	2	6.14	A2	1-2-1	KSA 41
0 16 W	+49 28	3	9v	P	1-2-1	Sp/Te 185^s; Cook 30; Kodak 120
1 19 W	+47 27	3	9v	P	1-2-1	(no plate) 20 20 60
0 21 W ?	+46 32	2-1	7.9	E5	1-2-1	for Hk
1 36 W	+47 52	1	7.54	Eo	1-2-1	KSA 31
1 42 W	+49 19	2-3	7.v	F2	1-2-1	KSA 32
1 26 W	+7531	2-3	7.2	Go	1-2-1	
2 02 W	73 56	2-3	6.66	A2	1-2-1	
3 51 W	61 37	2	7.4	Ko	1-2-1	
1 43 W	22 13	2-1	7.54	Ko	1-2-1	
1 41 W	61 38	2	7.07	F2	1-2-1	
0 35 W	56 29	3	7.28	F2	1-2-1	
2	52 16	3-4	7.57	M0	1-2-1	
					10/10	

Date Sunday, Nov 26-27 1937 B-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5260	HD 200407	21 55.2	43 --	I - 12	[illegible]	.010	-6.9 1.8	17 18	17 46	4
5261	HD 201114	21 02.5	47 39	I - 12	"	"	-6.5 2.0	17 59	18 51	3
5262	H.D. 215396	23 02.6	20 37	"	"	"	-6.5 2.0	18 57	19 11	2
5263	H.D. 221675	23 39.0	-01 48	"	"	"	-6.5 2.0	18 16	19 30	1
5264	H.D. 1632	00 15.5	32 21	"	"	"	-6.7 1.9	19 56	20 18	4
5265	H.D. 2888	00 29.1	42 57	"	"	"	-6.9 1.9	20 29	20 48	1
5266	H.D. 9312	01 20.6	26 28	"	"	"	-6.6 2.0	21 57	22 39	2
5267	H.D. 17086	02 39.5	60 09	"	"	"	-6.5 2.0	23 16	23 42	1
5268	H.D. 17682	02 49.1	60 43	"	"	"	-6.5 2.0	23 27	23 55	4
5269	H.D. 21354	03 11.9	28 41	"	"	"	-6.6 +2.0	00 39	01 41	1
5270	H.D. 44071	06 14.7	29 25	"	"	"	-6.6 +2.0	01 43	02 45	2
5271	H.D. 47069	07 06.6	29 55	"	"	"	-6.6 +2.0	02 29	03 19	3
5272	H.D. 74545	08 39.5	28 11	"	"	"	-6.6 +2.0	03 54		4

Pointer at 22.9

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	C 47 W	40 35	3	6.75	A_2	1-2-1	Sup
	1 50 W	47 47	2	7.50	A_0	1-2-1	Sup
	0 09 W	21 47	3	6.87	A_5	1-3	B.S.
	C 07 W	-1 37	3	6.84	A_2	2-2	B.S.
	0 04 W	22 33	3	7.15	K_5	1-2-1	B.S.
	0 22 W	43 09	3	6.73	A_0	1-2-1	Sup
	1 17 W	16 30	2	7.59	G_5	1-2-1	Bump [illegible] Light clouds
	0 42 W	60 16	2-3	6.82	A_5	1-2-1	Sup
	1 50 W	69 12	3	7.41	A_2	1-2-1	Sup. Bump image unsteady
	2 30 W	28 42	3	7.32	A_3	1-2-1	Sup
	0 16 W	29 22	3	7.19	F_0	1-2-1	Sup
	C 16 W	29 49	3-2	7.19	A_0	1-2-1	Sup
		28 34	3-2	7.58	F_2	1-	Sup [illegible]

		MC	SC	SW	HT	ST
Nov. 27	12	+47.6	-15.8	-11.7 Rut	+14.2	-0m.4

Date Monday, November 27-28 1927 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
						5.7	4 3			
5272	HD 196133	20 30.3	+44 50	I-12	Actin II	010	-5.2 +3.0	17 18	17 46	1
5273	196865	20 35.0	+47 43	"	"	"	-5.6 +3.0	17 50	18 30	2
5274	206212	21 35.0	+45 43	"	"	"	-5.6 +2.9	18 35	19 35	3
5275	217695	22 57.4	+47 24	"	"	"	-5.7 +3.0	19 40	20 40	4
5276	9312	01 26.6	+16 [illegible]	"	"	"	-5.6 +3.0	20 45	21 41	1
5277	4362	00 40.9	+29 02	"	"	"	-5.7 +2.9	21 46	22 20	2
5278	5343	00 52.8	+57 20	"	"	"	-5.7	22 32	23 07	3
5279	17591	02 44.8	+63 02	"	"	"	-5.7 +3.0	23 09	23 51	4
5280	21794	03 25.7	+57 32	"	"	"	-5.6 +2.9	00 01	00 31	1
5281	21970	03 27.4	+75 24	"	"	"	-5.6 +2.9	00 37	01 11	2
5282	31590	04 52.0	+73 55	"	"	"	-5.6 +2.9	01 16	01 52	3
5283	33491	05 02.2	+66 39	"	"	"	-5.7 +2.9	01 35	02 13	4
5284	37136	05 21.2	+61 33	"	"	"	-5.6 +2.9	02 17		1

ing Time S.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	1 21 W	+44 57	4-3	6.62	A0	1-2-1	KSA 40
	2 00 W	+47 49	3-2	7.42	C5	1-2-1	KSA 47
	2 05 W	+45 52	3	7.56	B9	1-2-1	KSA 41
	1 47 W	+47 35	3	7.50	A0	1-2-1	KSA 42
	0 19 W	+16 36	3	7.59	F5	1-2-1	Ring [illegible]
	1 44 W	+59 14	2	7.27	G5	1-2-1	KSA 8
	2 22 W	+57 39	3-1	7.17	K2	1-2-1	" 8 [illegible]
	1 10 W	+43 07	3	7.85	G0	1-2-1	" 9
	1 10 W	+11 38	3	6.53	F5	1-2-1	" 9
	1 46 W	+15 33	3	7.16	G5	1-2-1	" 3
	0 46 W	+73 36	3	6.82	A2	1-2-1	" 3
	1 12 W	+63 60	3	7.02	F0	1-2-1	" 10
		+61 52	3	6.79	A5	1-	" 10 dome rolling up on guide at E[23] at R[PA] stop when wind high getting worse which at F[150] was close enough.

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Date Tues Night 28-29, 1939 Hd-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5284	HD 1826	00 17.6	28 55	I-12	Extra II	010	-2.9 +5.1	5 44	6 24	2
5285	MW 409 HD 225095	23 58.3	55 00	"	"	"	-2.8 5.2 -2.7 5.1 -2.9 5.2	6 32	7 38	3
5286	HD 223057	23 41.2	62 45	"	"	"	-2.9 5.0	7 42	8 52	4
5287	HD 9312	01 26.6	16 28	"	"	"	-2.9 5.0	8 58	9 48	1
5288	MW 29 HD 13661	02 08.1	54 04	"	"	015	-3.0 5.0	9 54	11 24	2
5289	MW 76 HD 23982	03 44.3	63 "	"	"	"	-3.0 5.1	" 29		3
5290	MWC 158 HD 37182	05 31.0	-04 41	"	"	"	-3.0 5.1			
5291	MWC 159 HD 37650	05 47.1	-00 10	"	"	"	-3.1 5.1	05 20	05 46	1
5292	MWC 165 HD 65079	07 37.9	10 03 14	"	"	010	-3.1 5.0	05 5	05 41	2
5293	HD 84937	09 [illegible]	45 43	"	"	"	-3.1 5.0	05 49	06 46	3

W.S. Nov 30 - Dec 1, 1939 M

Did about half work. Sky fairly clear but hazy. 2 mag or more in zenith + very hazy around horizon. Continued running to obtain plates 5294 to 5316 Nov 30 - Dec 1 1939 H-T cloud all night

Delayed at opening by dec. 9 m. fuse blowing; watched at clamps (see Oct 28-29) before checking fuses.

P. 196

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
						MC SC SW MT ST
E 1h 45	29 05	2	7.00	A5	1-2-1	Nov. 28 +48 0 -16 0 +00·3 +11 0 -0·4
E 12m	55 12	3	7.6	B1e	1-2-1	Not sure if right star ✓ OK
W 1h 20	52 57	2-1	7.54	A0	1-2-1	K.S.A. Put dust on at 7:20 pointer at 25.5
W 31m	16 36	2	7.59	G5	1-2-1	
W 1h 25	54 13	2	8.6	B(3)n e	1-2-1	
[illegible]	[illegible]	2	8.1	B3e	1-1-1	have. Hesitated, then [illegible]
[illegible]	-00 +2	2-1	[illegible]	B-ne	1-1-1	✓ star looked a little bright [illegible]
1 09 W	-00 15	2-1	8.3	B-ne	1-1-1	✓ Dec 2 MC +48.5 SC -15.2 SW +98 MT -38.5 ST -1.3
2 08 W	+00 55	2-1	7.7	B-ne	1-2-1	✓
11 19 W	47 30	2-3	7.93	Ko	1-E-1	K.S.A
Low [illegible]	[illegible]	[illegible]	Cloudy all night			
						MC SC SW MT_s ST_m
						Nov. 29 12 +48.0 -15.0 +13.1 +07.2 -0.5
						Nov. 30 2 +48.0 -15.0 +29.0 -03.0 -0.7
						Dec 1 12 +49.0 -15.2 +40.8 -11.0 -0.8
						Dec 2 10 +48.0 -15.1 +53.1 -20.0 -1.0
Heavy cloud to [illegible]			Sat Dec 2-3			Clearing briefly at 10.30. Some hours not [illegible] Hol

Date Sunday Dec 4-5 1929, M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5294	HD 15226	2h 17.6	23° 15'	I-14	Cramer II	.010	-7.2 +4.2	17 46	18 56	4
~~5295~~	BD. 63° 110	2h 48.6	63° 22'	—	—	.025	-7.2 +4.2	19 06	(19 46)	1

Sun's limb at 2h 19
Mr Pointer at 2h 50
left the Observatory

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
5 SE	2° 66	0	7.00	A5	1-2-1	
3 2 E	63 44	1	7 0		2-1	Cloudy & overcast 11 PM Observation

Resumed Work
Cloudy at 20.50
Put on Shutter.
Nearly clear at 12h 1m A.M.
Cloudy, shutter to open, stop
telling us open water at 1 3h
Stay remainder cloudy with occasional Flakes.

		MC	SC	SW	H_t	S_m
Dec. 5	12	+49.9	-15.6	+35.4	+19.8	-0.2
					Rest	

Date Sunday Dec. 5-6 1939 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
							A B			
5296	HD 209992	22 02.2	+44 46	2-12	40 II	010	-6.7 +1.8	17 15	17 35	2
5297	209212	21 35.5	+45 42	"	"	"		17 37 17 55	18 37	3
	Thurs. Dec. 7 B T Rain with occasional clearing. High wind.									
	Hgt humidity, for the day after 2 p.m. but improved rapidly									

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
0 09 W	+44 56	1	6.14	A2	1-2-1	KS441 Light clouds.
	+45 52	1-2	7.56	B9	1-2	" 41 Clouds 15°; [illegible] 15°

	NC	SC	SW	MT	ST
Dec 7, 12	+50.2	-15.9	+0.6	+13.2	-0.3
Dec. 8 12	+51.0	-16.4	+17.5	+08.9	-0.3

Date Fri Dec 8-9, 1939 Hd - B Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
~~5298~~	~~HD 3229~~	~~00 30.4~~	~~-4 04~~	~~I-12~~	~~extra H~~	~~0.10~~		(7 30)	—	~~4~~
5298	HD 11037	01 43.3	03 11	I-12	extra H	0.10	-8.5 -0.2	8 32	9 38*	4
5299	HD 29224	04 31.0	27 43	"	"	"	-9.1 -0.7	11 10	2 16	1
5300	HD 47256	06 32.6	27 53	"	"	"	-9.5 -0.7	2 31	(3 30)	2

Stay merry till 7.80.

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
			6.[illegible]	F8		Clouded again while setting – lost image
W 44m	3 23	1	6.78	G5	1-3	* Think wire 8.50
[illegible]m W	27 47	1	7.20	F0	1-2-1	Clouds at 11.20
[illegible]m W)	27 01	1	7.26	A2	1-2-1	Clouds rolled up from East – 10 Cloud up at 7.30

Date Sat. Dec. 9-10 B(for Y) -T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5301	H.D. 210170	22 03.4	17 04	I-12	No. II	.010	-5.5 +3.0	17 23	18 15	-
5302	H.D. 219699	23 12.8	30 29	"	"	"	-5.0 +3.6	18 21	19 37	)
5303	H.D. 2054	00 19.1	52 30	"	"	"	-4.6 +3.6	19 48	20 00	+
5304	H.D. 8315	01 20.8	73 11	"	"	"	-4.5 +4.1	20 11	21 49	-
5305	H.D. 19789	03 05.9	12 42	"	"	"	-4.3 +4.1	21 56	23 56	)

Sky hazy

Guider at 24.5, had to reset guider several times, star tended to drift off scale to the left. Lost off 101 exposure.

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
1 04 W	17 19	1	6,98	A0	1-2-1	K.S.A. 90
1 15 W	30 40	2	7.74	F0	1-2-1	K.S.A 67
1 39 W	52 42	2	5.72	B9	1-2-1	B.S. Sky round to N.E. wind being moved.
1 50 W	43 -0	2	7.27	F2	1-2-1	K.S.A. 21 Clouds at 20 45
1 45 W	12 40	2	7.22	G5	1-2-1	K.S.A. 11 light clouds Called 23 45
						Closed up at 23 55 - Cloudy
						Sky late. Field covered by clouds.

		MC	SC	SW	MT	ST
Dec. 11	12	+52.1	-16.7	+56.4	+03°.6	-0m.1
					Reset	

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Date Monday, Tuesday Nov 11-12, 1939 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
						5x	A B			
5306	HD 214558	22 33.9	+44 40	I-12	Agfa II	010	-10.4 -1.4	17 17	17 57	4
5307	217695	22 57.4	+47 24	"	"	"	-10.5	18 01	19 41	1
5308	74361	06.7	+47 36	"	"	"	-10.5 -1.6	19 44	20 38	2
5309	5296 01	52.6	+45 03	"	"	"	-10.4 -1.6	20 41	21 47	3
5310	15529	12 25.2	+46 59	"	"	"	-10.5 -1.6	21 49	22 59	4
5311	30377	10.5	+31 49	"	"	"	-10.5	23 03	23 [illegible]	1
5312	91451	04 49.3	+61 36	"	"	"	-13.5	23 56	00 46	2

Tues Dec 12-13, H-L Partly clear briefly at 6.00 and 7.20. Otherwise thick

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
0 22 W	+44 52	0	6.95	F8	1-2-1	KS-42
1 41 W	+47 36	0	7.50	A0	1-2-1	" 42
1 31 W	+47 48	1	7.30	K0	1-2-1	" 43
1 54 W	+45 18	1	7.25	A3	1-2-1	" 90
1 34 W	+41 18	1-2	7.45	F2	1-2-1	" 22
1 42 W	+38 18	1	7.15	K0	1-2-1	" 47
	+40 37	1-0	7.45	F0	1-2-	" 10 clear at 00 40

		MR	SC	SW	MT	ST
Dec. 12	12	+52.9	-16.9	+04.4 adv 1m	+02s.8	+0m.1
Dec. 13	12	+54.5	-16.1	+18.7	5 00.8	+0m.2

Date Thurs Dec 14–15, 1939 Mal. 1 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5313	HD 214 [illegible]	22 37.2	44 09	I-12	Ilford Ia	010	-12.3 -3.5	5 23	6 43	3
5314	HD 214946	22 36.7	44 29	"	"	"	-12.4	6 45	7 45	4
5315	8671	21 [illegible]	42 [illegible]	"	"	"	-12.2	7 48	8 18	1
5316	18040	02 48.8	47 56	"	"	"	-12.3	8 22	9 12	2
		I-12 focus was 26.23. Tilt 26.29 changed to I-25								
5316F	Focus			I-25	Ilford I	010				2
5317	42 Cam HD 48279	06 10.5	69 41	I-25	Ilford I	010	-12.0 -2.5	10 40	10 54	3
								10 54	11 09	
								11 09	11 23	
5318	"	"	"	"	"	"	"	11 24	11 38	4
							-12.1	11 38	11 52	
								11 32	0 [illegible]	
3 5319	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0 07	0 -1	1

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
W 1h 20	44 21	1	7.01	A0	1-2-1	Hazy, Passing clouds most of Time
W 2h 20	44 41	1	7.26	A5	1-2-1	
W 9m	43 06	1	6.58	F8	1-2-1	
E 25m	48 05	2	7.26	A2	1-2-1	
Extended Three hours					Polite Cat	Tilt 23 15 Cat Focus
						1 23.3
						6 23.5 ← Good.
						9 23.7
					Polaris	Cat
	67 37	1-2	4.87	B3	8-8	1
		2-3			8-8	6
		2			8-8	9
		2-3			8-8	1
					8-8	6
					8-8	9
					8-8	1

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Date Thurs Dec 14-15/34 11h - T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
- 5Z 19	12 Pers. HD 24119	03 40	47 41	D-25	Ila-F	.016		0 21	0 35	
								0 35	0 44	3
- 57-20							11:30	0 49	1 0 03	2
								0 03	0 17	
								0 17	0 31	
								0 31	0 45	
- 1-Z 21								0 45	1 [illegible]	
								1 59	2 13	
								[illegible]	[illegible]	
- 5Z 22							-12	2 27	2 51	4
								2 51	3 07	
								3 07	3 25	
- 5Z 23	HD 24119	3 01	57 [illegible]	"	F-53	.016	-12	3 32	4 30	1
5Z 24	24119	03 24	57 43	"	Ila-F	.010	-12	4 22	5 53	2
5Z 25	[illegible]	[illegible]	63 16				-11	5 [illegible]	7 00	

Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
		2-3		8-8	6-
				8-8	9+ overlapping ! only 2 were very clear
				8-8	1 Old exposures overlapping
				8-8	6- (Shutter closed)
				8-8	6-
				8-8	9+ Fri. Dec 15-16 M-B closed at 1 OC
				8-8	1 between filled in again. Clear and
		2-3		8-8	6- time Shutter closed 4'15
				8-8	9+ Superior pl. clear of clouds
				8-8	1
		2		8-8	6-
		2		8-8	9+ At Equator
2 4: W	51 48	2		10	interfere. For B. Cloud 46 in Water.
2 47 W	57 29	2		4-4-4	Hole RSC
2 49 E	63 01	2		4-4-4	RSC Scattered clouds

		MC	SC	SW	MT	S.T.
Dec. 13	12	+ 54.7	-17.1	+47.5	-01.0	+0.0
Dec 16	"	+ 55.7	-16.2	+47.5	-01.0	+0.1

Date Saturday December 16-17 1939 H-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
	Cloudy most of day; part clear in early AM 8h 15m – 8h 45m, but hazy and generally filling in again								
	Sunday – Dec 17-18 1939 Mostly cloudy								
	Sunday – Dec 19-20 1939 H-T Cloudy in all evening								
Wed Hd-L Cloudy	Thursday 21 22 24 – Part Clear, Dec 1 – 2,0 H-T Filling in								
	H-T Fair Stars. Shielded dome								

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	Very unsettled						

			MC	SC	SW	MT	ST
Dec.	18	12	+56.9	-16.7	-01.6	+02.4	+0.0
	20	12	+58.2	-15.7	+23.4	-01.0	+0.0
	21	12	+58.3	-15.1	+35.9	+03.0	-0.1
	22	12	+59.6	-14.5	+49.7	+00.2	-0.1

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Date Feb 22-23, 1907, M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	
-5326	BD 63°0110	0 48.6	63 33	I-12	[illegible]	.020 L	-11.7	-2.9	13 15	21 37	1/2
5327	HD 23477	3 44	47 46	—	—	.010 L	-12.1	-3.2	21 43	22 41	1
5328	37646	5 35.0	29 26	—	—	—			22 49	23 51	2
-5329	BD 8°1402	6 29.3	8 37	—	—	.020 L	-12.3	-3.4	24 06	03 40	3

Changed over to 12-inch. 25 inch at focus 23.5 tilt 23.15.
Set 12 inch to focus 26.23 tilt 20.23. 2/4
5325 F_1 — tafrail at temp A −11.8 B −3.9 focus should be shorter.
Set focus to 26.15

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
2 32 W	63 45	2	9.1		½-1-½	Pointing off to 18.65. (RA Clamp not working)
44 W	43 53	2	7.05	B	1-2-1	light clouds forming overhead at 21.40
0	29 25	2	6.75	A	1-2-1	
E 55 W	8 51	2	9.0	A	½-1-½	light clouds, thin at 01^{65}-01^{45}, more dense clouding toward end of exposure. Set thin at 5.90 cloud up.

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Date Sat Dec 23-24, 1939 Hd - T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5330	HD216562	22 48.8	30 14	I-12	Extra II	0.10	-11 -3.4	17 49	1 33	4
5331	HD 24701	03 50.5	43 02	"	"	"	stopped-new set -13½ -4½	21 42	22 42	1
5332	HD 36-25	05 26.5	31 48	"	"	"	-13.4	22 48	23 48	2
5333	HD 36180	06 04.2	14 52	"	"	"	-13.6 -4.0	23 52	1 20	3
5334	54901	7 05.4	15 30	"	"	"	-13.7 -4.2	1 24	3 00	1
5335	84009	9 37.0	32 49	"	"	"	-13.7 -4.2	3 06	4 06	2
5336	102555	11 43.2	28 57	"	"	"	-13.7 -4.8	4 31	5 31	3
5337	116049	12 46.4	22 04	"	"	"	-13.7 -4.8	6 04	7 04	4

Sun Dec 24/39 T - Mostly cloudy

Clouding up at moment, then clearing.

RH clamp stiff not working.

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
E3	W 2h 3m	30 25	0	7.52	Az	1-2-1	Some clouds throughout. Very cloudy at 19.30
-2	W 39m	43 08	0	7.20	Ho	1-2-1	
-4	W 9m	31 48	0	732	Az	1-2-1	
-2	1 03 W		0	727	Bg	1-2-1	
-0	1 42 W	15 26	0	754	Fo	1-2-1	
-0	0 37 W	32 21	0	752	Fe	1-2-1	
-0	0 06 W	28 44	0	755	Fe	1-2-1	
-2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1-2-1	[illegible] - Partly cloudy (10 - 6.45

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Date Sept. (Oct.) 25-26, 1939 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5338	HD 84607	09 41.5	02 15	I-12½	Astra II	Sc C10	A. B. 43.2 -44	03 35	04 09	1
5339	" 99607	11 22.5	45 07	"	"	"	-43.2 -44	04 20	04 40	3
5340	" 101620	11 37.5	41 48	"	"	"	-43.3 -44	04 45	05 12	4

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
							Clouds at 11.20, thicken at 11.40 and thick from 12.00 - 1.30 hazing, clear at 2.10 with occasional clouds thereafter.
							Printer set at 17.5
	0 54 W	02 32	0	6.83	Fo	1-2-1	B.S.C.
	0 14 W	44 52	0	7.14	Fo	1-2-1	K.S.A. 71
	1 32 W	41 33	0	7.50	Fo	1-2-1	" "

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Date Tuesday, Dec 26-27, 1939 M-L **Julian Day** -10 -5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	
-5341	BD 63°0110	0 48.6	+63 33	I - 12	a to II	.020 L	-4.5	-5.8	17 55	21 23	1
5342	HD 34021	5 09.2	+12 25	—	—	.010 L	-15.0	-5.1	21 33	23 45	2
5343	BD 8°1102	6 29.3	+8 54	—	—	.024 L	-15.3	-5.8	23 58	02 35?	3
5344	HD 109018	11 29.0	11 35	"	"	.010 L	-15.0	-5.8	04 15	06 27	4
5345	" 105866	12 08.1	13 33	"	"	"	-15.0	-5.7	05 55	07 55	1
	From Test				Outside	thing here					

R.A Clamp still won't work. Taste quite out of time in setting [illegible] well E.

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
33 W	63 43	1	9.1		½-1-½	Put on Test in a hurry at 17h 8m at 16h 0m
36 W	12 25	1	7.5	A0	1-2-1	
2° 01' W	08 50	1	9.0	A	½-1-½	R.A. Clamp going again. Stage does better here at 2.30. Sky much covered with light cloud and Stage seeing until 4.30, should be thinning out.
0° 01' E	11 20	0-1	6.5?	A2	1-2-1	Orange light cloud Stage.
1° 04' W	12 20	0-1	6.9	B9	1-2-1 10/10	

Date Local Dec 27-28, 1939 Gr. M. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5346	HD 216562	22 48.8	30 14	I-72	Auto. L	010	-20.7 -10.5	17 37	18 47	2
5347	HD 9312	01 26.6	16 28	"	"	"	-19.7 -10.5	18 55	19 53	3
5348	MW 49 HD 15472	02 24.4	70 30	"	"	"	-19.7 -10.4	20 06	21 46	4
5349	MW 83 HD 26906	04 10.1	45 58	"	"	015	-20.0 -10.4	21 58	(?) 09	1
5350	MWC 109 H.D. 50209	06 47.1	-00 10	"	"	"	-10.5	00 54	01 32	2
5351	H.D. 56222	07 11.1	21 53	"	"	010	-19.7 -10.5	02 02	02 30	3
5352	" 76232	08 30.1	40 25	"	"	"	-19.6 -10.5	02 38	03 42	4
5353	" 90202	10 28.2	43 43	"	"	"	-19.6 -10.5	03 32	04 16	1
5354	" 99302	11 20.5	27 12	"	"	"	-19.6 -10.5	04 27	05 24	2
5355	" 115723	13 13.9	34 37	"	"	"	-19.6 -10.5	05 21	06 23	3
5356	" 120048	13 42.0	59 00	"	"	"	-19.6 -10.5	06 29	07 09	4

RA clamp not working!
Twice during first half star moved off by about 1½ min. clamp slipping?

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
W 2m 01	30 2[illegible]	1-2	7.52	A2	1-2-1	
W 30m 12	16 38	2	7.57	G5	1-2-1	
W 1 25	70 40	2	8.0	B4	1-2-1	Old trouble with arc again
2 02 W	46 05	2	8.6	B8	1-1-1	Set 9 took fainter (north) comp. of pair.
1 09 W	-00 14	2	8.3	P[illegible]e	1-1-1	
1 43 W	31 47	1	6.63	B0	1-2-1	KSA 51
0 36 W	40 25	1-2	6.22	F2	1-2-1	BSC
0 58 E	45 31	2	7.43	K0	1-2-1	KSA 30
0 [illegible] W	27 03	2-1	7.2[illegible]	A2	1-2-1	55
0 46 E	34 25	2	6.52	K0	1-2-1	BSC guiding bad
0 27 E	33 48	2	7.[illegible]	K0	1-2-1	

S
W E
N

Date Thurs Dec 28-29 Hd- Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
~~5357~~	HD 9312	01 26.6	16 28	J-12	Extra T	010		18 05		1
				Friday 29, 29-30	14	-T	Cloudy all night			
				Sat Night 30-31	14	-T				
									M.	

Delayed: Burned wrong sign for clock correction
(it is now $+0^m.4$ for Sta. of Obsn) p 224
Finder badly aligned.

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
			7.59	G5	1-	Suddenly Thick at 18.15 Cleared 19.20
						Sunday Dec 31 Set double bandstand M T 0 0 Set Dec +70 S
						Sunday Dec. 31 B. Clear in early evening but high wind. Snow at 7:30.
Closed some after 8 hours on account of Thick						Sunday Jan 1/28 HAPPY NEW YEAR Checked and readjusted finder Found a star had shifted in R.A. following axis correction Jan 1, 12h, M T (day 31) −16s, S T 8h 19m 6s
observed Thick						
Very heavy Snow Fell in the Night						
Thick again at 21 on the						

Date Tuesday, January 2-3, 1940 H-L **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	[illegible]
5357	H.D. 222642	23 37.3	+44 13	I-12	Astra II	set .010	(-19.5?) -10.3	17 35	(19 00)	[illegible]

Thursday, January 4-5, 1940 H-T Cloudy and snow.

Friday, Jan. 5-6, 1940, M- Cloudy, later stars visible through fog.

Started on part of the sweep; clearing (?) 17[h] 40[m]

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Light clouds 17[h] - 18[h] 21[m] Mt

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS						
										ME	SC	SW	MT ST
		+44 25	2	7.8	F0	1-2-	1940	Jan. 2	12	+1 13.6	-18.7	-23.5	-13[s].9 -0[m].3
								Jan. 3	12	+1 16.7	-18.0	-06.7 Reset	-13[s].0 -0[m].2
								Jan. 4	12	+1 12.0	-18.-	+ .-	-12[s].- -0[m].-
								Jan. 5	13	+1 19.8	-18.5	+23.6	-18[s].0 -0[m].3
								Jan 6	12	+1 20	-18.7	+37.9	-20.0 -0.3

[illegible] working. Moving parts backlash 22.50 in

Date Sat Jan 6-7, 1906 Std -7 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A B	Starting Time E.S.T.	Ending Time E.S.T.	
5358	HD 5638	00 53.0	46 31	I - 12	Cramer II	010	-16.2 -6.6	17 32	18 12	3
5359	8671	01 20.4	42 57	"	"	"	-6.9	18 17	18 51	2
5360	18040 faint	02 48.8	47 56	"	"	"	-7.0	18 59	20 35	1
5361	24701	03 55.5	43 02	"	"	"	-7.0	20 39	21 44	2
5362	38258	05 18.4	47 26	"	"	"	-7.1	21 45	22 55	3
5363	43537	06 11.7	28 42	"	"	"	-7.0	23 02	00 22	4
5364	58244	07 19.7	32 06	"	"	"		20 37	1 29	1
5365	72775	08 29.6	42 56	"	"	"		1 34	2 36	
5366	84004	09 37.0	32 49	"	"	"		2 40	4 32	3
5367	107565	11 42.2	28 07	"	"	"		4 35	5 57	4
5368	185424	13 32.9	45 46	"	"	"		6 03	7 17	

ding Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	W 1m	46 42	1	6.75	Ho	1-2-1	
	W 12m	43 07	0	6.58	F8	1-2-1	
	W 27m	48 05	0	8?	H2	1-2-1	fainter Comp.
	W 32m	43 07	0	7.20	Ao	1-2-1	
	E 3m	47 25	0-1	7.33	B8	1-2-1	
	W 53m	28 00	0	7.42	Ho	1-2-1	
			0	6.31	Ao	1-2-1	Much trouble with dome turning - relay - slipping (!)
	W 45		0-1	7.04	A2	1-2-1	
	W 13		0	7.32	F2	1-2-1	More trouble with dome turning relays
	W 00		0-1	7.55	F2	1-2-1	
			0-1	7.43	F2	1-2-1	

		MC	SC	SW	MT	ST
Jan. 8	10	+1 25.0	-18.9	+1 10.3	-09.0	-0m.3

Date Tuesday Jan 8-9, 1940 M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature T	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	
5369	BD 63° 1110	0 48.6	+63 33	I-12	Astro II	1024	-19°0	-9°5	17 52	20 32	2
5370	HD 20503	3 12.8	12 28	—	—	010	-19.3	-9.2	20 38	22 40	3
5371	HD 37579	5 34.1	31 18	—	—	—	-19.2	-9.5	22 45	23 15	4
5372	BD 8° 1402	6 29.3	8 54	—	—	020	-19.0	-9.0	23 25	02 55	1
5373	HD 81995	09 24.1	45 12	"	"	010	-19.0	-9.6	02 33	03 27	2
5374	" 98547	11 15.2	17 52	"	"	"	-19.0	-9.5	03 33	04 15	3
5375	" 99004	11 18.5	17 42	"	"	"	-19.0	-9.5	04 20	05 12	4
5376	" 100518	11 29.0	11 35	"	"	"	-19.0	-9.6	05 16	06 02	1
5377	" 140139	15 37.5	44 11	"	"	"	-19.0	-9.5	06 01	07 11	2

Focus Test

Cloudy through here

from top of p 3 vo

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	33 W	13 44	1-2	9.1		½-1-½	
	18 W	12 34	2	7.59	B8	1-2-	considerable trouble with R.A. setting clamp slipping causing star to drift a little, after
	31 W	31 18	1	5.91	B8	1-2-1	first bit of rain left dome slipping
	2 46 W	8 51	2	9.0	A	½-1-½	trouble with dome turning.
	0 54 W	45 00	2	7.26	A5	1-2-1	KSA 29
	0 09 E	17 37	2	6.87	A0	1-2-1	KSA 79
	0 45 W	15 28	2-1	7.09	A2	1-2-1	" "
	1 15 W	11 20	2-1	6.52	A2	1-2-1	" "
	1 22 E	44 02	2-1	7.40	F0	1-2-1	KSA 36 Set ½
						10/10	Set 7½

		MC	SC	SW	MT	ST
Jan. 9	12	+1 26.9	-19.1	+1 24.4	-06.8	-0.1

Date Tuesday, January 9-10, 1940 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5378	HD 743	00 06.7	+47 36	I-12	Ast. II	cr c10	-14.3 -5.3	17 53	18 47	2
5379	[illegible]	01 30.7	+47 49	"	"	"	-5.3	18 51	20 21	4
5380	21970	03 27.4	+75 24	"	"	"	-5.3	20 [illegible]	(21 10	1
5381	31151	04 45.3	+61 36	"	"	"	-5.3	21 16	22 36	2

Wed Jan 10-11 Cloudy Hd-L

Fri Jan 12-13 Hd-13. cloudy

Saturday - Jan 13-14 1940. - M

Stars appeared faintly through thin cloud and
sky 19.30. Remained thick

Monday, Jan 15-16 1940 - M

Heavy snow showers intermittent with 15 min.
fair spell after 21 00 by last record, closing at 22 00

Clouds + fogs at summit; gradually clearing. 232

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
1 34 W	+47 48	0-1	7.30	K0	1-2-1	Fogs at start. Cirrus moving with low hot in [illegible]
1 44 W	+48 00	2-3	7.54	F0	1-2-1	Clouds, thin gone 10[35] - 1[15] to thick fogs
0 35 W	+75 32	3	7.16	F5	1-2-1	Clearing slowly; light fogs, thick ago 21[02]
0 41 W	+61 37	3-2	7.96	F0	1-2-1	Fogs, sky but not after.
						Plate perfect, as good.
						Still; wind bearing south; light over Clouds after

		MC	SC	SW	M.T.	S.T.
Jan. 10	12	+1 29.0	-19.0	-21.1	-05.8[s]	-0.2[m]
jan 11	10	+1 30.0	-19.0	adv 2[m] -08.0	-08.5	0.0[m]
Jan. 12	12	+1 32.5	-19.0	+05.9	-011.7[s]	-0.3[m]
Jan. 13	10	+1 34.5	-19.1	+16.0	-12.2[s]	-0.0[m]
jan 15	12	+1 37.5	-19.7	+12.1	+03.2	-0.1

Hazy until 2[h] a.m. still

Clear, start at 8[h] summit. Cloud [illegible] hazing, cirrus drifting [illegible] at
considerable wind too strong to work, getting still at 23.0 by L. Cir. L

Date Tuesday, January 16-17, 1940 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5382	HD. 222642	23 37.3	+44 13	I-12	Ilford Process	5 mm	-10.7	17 46	18 52	3
5383	15579	02 25.2	+46 09	"	"	"	-13.6	18 56	20 06	4
5384	17322	02 47.7	+42 11	"	"	"	-10.6	20 10	22 20	
5385	74037	08 [illegible]	+32 13	"	"	"	-14.3	01 25 *	23 40	2

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
2 3 6 W	+44 24	0	7.18	F0	1-2-1	Trouble with trailing after by high wind.
1 0 2 W	+46 13	0	7.40	F2	-2-1	RC SE SW MT$_s$ ST$_m$
3 [illegible]	162 20	0-1	7.43	F5	1-2-1	Jan. 16 12 +1 38.7 -20.0 +57.8 +027 -0.2
						Light clouds 20^{15} — clear 20^{35}—21^{15} Sky opened up
						Perfect — good.
						Low cloud at 12^{35}.
						Temp on dome −7
2 [illegible] W	+51 09	000	7.54	F8	1-2-1	Focus 9.8 during Trouble temp a little
						* put west off from 2^{35}-3^{60} extra
						off slit from 2^{35}-3^{26}
						Time having gone out Pres.
						Dr Hagg, he came up after
						experimenting a while put switch
						knife on keys relays to and
						then. Pres. grabbed out tower
						closed by hand and gave it up.

Date Wed Jan 17-18 1940 MT - Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
5386	[illegible]	03 37	[illegible]	I-12	[illegible]	D-D	-13.5	19 57	20 37
5387	HD 29224	04 31	27 43	"	"	"	-13.5	20 42	22 44
5387 B	[illegible]	[illegible]	[illegible]	[illegible] 18-19 1940		H-3			
				I-25	[illegible]	"			

Clearing about 19.00

Pointer at 9.8

ling Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	W 28m	28 34	2		A0	1→2→1	Some clouds MC SC SW MT ST
	W 1h 4m	27 47	2	7.8	A0	1→2.1	Jan. 17 12 +1 40.1 −18.8 +1 12.9 +03.0 −0.1
							Thicker mist coming
							Snowing at 22.44 Closed
							MC SC SW MT ST
							Jan. 18, 10 +1 41 −17.7 +1 31.3 +05.0
				12-inch			Slide 26.17
							Filt 22.25
							[illegible]
					1	23.3	
					6	28.7	
					9	27.5	← good.
							[illegible]

Date Thursday, January 18-19, 1933 H-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
- 5388	HD 13161	02 03.6	+34 31	I-25"	Process	3 c/c	-12.7	18 20	18 50	3
	"	"	"	"	"	"	-12.7	18 52	19 18	
- 5389	HD 15089	02 26.9	+66 57	"	"	"	-12.8	19 25	19 45	1
- 5390	" 28319	04 22.9	+15 37	"	"	"	-13.9	19 54	20 [illegible]	4
	28319						-13.7	21 45	22 05	
	28319						-13.0	22 10	22 32	
- 5391	SL 886	07 14.2	+22 [illegible]	"	"	"	-13.9	23 21	[illegible]	
	SL 946						[illegible]	23 50	[illegible]	
	SL 950	"	"					23 57	[illegible]	

Sept cont 10.3

Hour Angle End	Declination	Seeing	Ptg. Mag.		no filter	REMARKS
0 16 W	+34 42	1?	3.22	A6	7-7-7	Delay in start due to changing camera and to finding [illegible] for B. Image very small, but wandering so that almost impossible to get star on slit. Wind
"	"	"	"		7-7-7	
1 52 W	+67 07	1-2	4.7	A5	7-7-7	last window or stiffness in wind to [illegible]
0 21 W	+45 43	1-2	3.9	F0	7-7-7	p. B. [illegible]
1 11 "		2	3.9	F0	7-7-7	Wind
1 37 W		1-2	3.9	F0	7-7-7	"
3 45 E	+22 03	2	3.7?	F0	7-7-7	p. B Image wind Clouds 23m [illegible]
5 01 W		2	3.79	F0	7-7-7	Light [illegible]
2 56 W			3.79	F0	7-7-7	Clouds
						Cloud thick at [illegible] and Clouds [illegible]
						Still thick at 4.00

		MC	S.C.	SW	MT	ST
Jan. 19	12	+1 42.9	-18.0	-0.89 Adv.	+09.s6	-0.m2 Rest

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Date Friday Jan 19-20 1940 M-B Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	Hour
-5392	τ Per.	3 26.3	47 47	I-25	A Ea II	.007	-14.0	19 10	19 16	2
-5393	—	—	—	—	—	—		19 17	19 23	3
5392	—	—	—	—	—	—	-14.0	19 35	19 [illegible]	2
5393	—	—	—	—	—	—		19 51	20 [illegible]	3
5393	—	—	—	—	—	—		20 02	20 46	3
5392	—	—	—	—	—	—		20 47	21 31	2
-5394	β Per.	5 55.1	44 57	—	—	—		21 49	21 54	2
-5395	—	—	—	—	—	—		21 56	22 02	4
5396	—	—	—	—	Brown	—	-14.1	22 04	[illegible] 17	1
							Light flurries S.W.			
							Thickening	22.30		

Sat Jan 20-21 Hd-T. Clouds, thick haze, Thin haze, snow periodically
Have up at 22.35 — Hd.
Hd-T

Clouds after sunset in thin cloud

Wind vibrated telescope so very difficult to keep image

Hour Angle End	Declination	Seeing	Ptg.	Mag.		Position of [illegible] 9.18 REMARKS [illegible] slit
	47 45	0	5.5	Ko	12	setting 2 [illegible] at
	—	0	—	—	10	2 one in
	—	1-0	-	—	5 - 5	5 —
	—	1-0	-	-	5 - 5	5
	—	1-0	-	-	6 - 6	8
	—	1-0	-	-	6 - 6	8
	44 58	1	2.07	Aop	—	Exps [illegible] settings [illegible]
	—	1	—	—		
0:11	—	1-0	-	—	20	Jan. 20, 12 MC +1 44 SC -18.3 SW +03.7 MT +14.0 ST 0.0

Wind much stronger
Image moving all over map.
Thought advisable to close dome

Plates 5393 and 5375 taken to [illegible] for special processing

Closed dome at 22:30 temp. 0° + 2° F

Blower wouldn't start
left [illegible] out

Date Monday Jan 22-23, 1940 M Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
	Cloudy all day - cleared about an hour after dark.									
				Changed to 12" camera - 25" at focus						
5396 F,				I-12			-15.0 -6.0			
5397	HD 32419	4 58.0	+41 09	—	—	.020	-5.0 -1.0	20 51	22 17	1
				Tuesday, Jan 23-24, 1940			H-L			
	Partly clearing at sunset, but thick haze filling in by dark, and only min visit the clouds must be coming.									
	Wed	Hd-L	Same work as above last several							

Pointing 15.92

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
						MC SC SW MT ST
						Jan. 22 12 +1 48.0 -18.5 +31.7 +09.0 -0m1 +0.2 Reset
26.5	tilt	23.15				
	set	12 - 6			from 26.15	tilt 20.25
	hour outside				12 9	some past night
1 00	41 11	1	8.9	A0	½ - 1	light clouds most of night at start clouds on and off Seeing Check Images at 22.0 all 21 stars of system Seeing from 22.3
						Jan 23 12 +1m50s.1 -18s.7 +45.6 +11s.0 -0m.0
						24 13 +1 52.3 -18.6 +57.4 +10.6 -0.0
						25 10 +1 54.0 -18.3 +68.7 +10.0 -0.0

243

Date Thurs Jan 25-26, 1900 Hd - Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	
5393	HD 9312	01 26 6	16°28	I-12	Seed I	0.10	+15.3	-6.3	19 02	19.30	2
	Bad definition with frequent flaws till 3 a, then thick.										

clouds + snow earlier

set pointer 15.8

Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
~~4h 25m~~ 2h 00m	16 37	0	7.59	G-5 1-3	Clouds from first Track at 19.3m Snow later. Closed up 22.30 RA clamp. holding again.

		MC	SC	SW	MT	ST
Jan. 26	12	+1 55.9	-18.7	+1 26.8	+13.4	+0.1

245

Date Friday, Jan 26-27, 1950 M-L Julian Day 19

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	
			Light cloud	cloud	snow	after	sunset	-	Cleared	shortly	
							-20.1	-10½	-		
5379	HD. 70566	8 17.6	32 38	I-12	2-F	.010	-20.2		23 27	1 07	1
5400	HD. 9-109 UV Leo	10 33.0	14 47	"	"	.025	-20.1	-10.7	1 27	5 01	2
5401	H.D. 105714	12 24.3	17 53	"	"	.010	-20		5 10	7 10	4

Pointer at 12.00

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
before 21.00 hrs from NE.		and started to Clear again at				but heavy bank of cloud came up
0 5 W	32 28	0	7.56	A 3	1-2-1	
2 31 W	14 34	0	9.87	G 5	½-1-1½	Had trouble with R.A. slipping during exposure. Lost star for 20 min? when telescope stopped 3 min. on R.A. Reset star. Good
2 4 W	17 38	0-1	7.52	A 0	1-2-1	

	SC	MSC	SW	MT	ST
Jan. 27	-18.6	+1 57.7	+1 37.9	+20.s4	+0.m2

247

Date Saturday Jan 27-28, 1940 17-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5402	NGC 7312	01 24.6	+16 28	I-12	A-Ma II	cut 010	3 -12.6	18 15	20	4
5403	22521	03 32.2	+42 13	"	"	"	-12.6	20 20	21	1
5404	34255	05 11.0	+62 33	"	"	"	-11.7	21 36	22 16	2
		Tuesday	Jan 28-30,		M		Cloudy all evening			

Clear all day; clouding at sunset, gradually thinning after dark.
Temp at 10.5

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
2 54 W	+16 36	1	7.59	K2	1-2-1	[illegible]
2 02 W	+42 20	1-2	7.51	K2	1-2-1	[illegible]
1 09 W	+62 34	2	6.95	K2	1-2-1	[illegible]
						Moll thick last half
						Jan. 29. 12 MC +14.2 Reset Added 0.2 SC -18.0 SW +09.7 Adv 2m MT +26.2s ST +0.2m
						Jan. 30 12 +15.3 -18.1 +20.7 +27.0s +0.2m

Date Tuesday, January 30-31, 1940 11-11½-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5405	HD 9312	01 26.6	+16 28	I-12	Eastman II	5-7 / 0.10	-7.0	18 02	19 12	3
5406	20367	03 11.5	+30 46	"	"	"	-7.0	19 26	20 06	4
5406F1	Focus			I-24	"	"		Outside the plate		3
5406F2	Focus	Telescope changed from HD 20367 to 42 Com between focus plates								
5407	42 Comae HD 108767	06 40.5	+17 41	I-24	Eastman II	0.10	-4.4	21 17	21 33	4
								21 34	21 50	
								21 54	22 08	
5408	"	"	"	"	"	"	-5.3	22 09	22 25	3
								22 26	22 42	
								22 43	22 57	

Fowler

Test out

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
2 03 W	+16 37	0	7.59	G5	1-2-1	for Hk
1 12 W	21 52	0-1	7.08	G0	1-2-	K13 47. Trim bat became loose during test
	Told 23.15	7 runs 23.3	set	1	4/4	no filter
		23.7		6	fleet but not good	
		23.5		9		
	24 W 15	5 runs 24.7	set	1	4/4 good	Some tremor, decent runs after first poor plate. H Turned it poor in between, later it worked once but stuck on (no hum) Good start of test at 20.10. at 21.20 temp was -4.4 despite open door during focusing. Must have come up between 19.40 and 20.10. Note anomaly in focusing.
		24.1		6		
		23.9		9		
	67 37	1		B3	filter 10-10	set 1 } focus at 23.9
					10-10	" 6 }
					10-10	" 9 } focus at 23.7
					10-10	" 1
					10-10	" 6
					10-10	" 9

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Date Tues Jan 30-31 Cont'd Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
- 5409	42 Com Cont'd						-5.3	23 00	23 16	4
								23 17	23 33	
								23 34	23 50	
- 5410	"	"	"	"	"	"		23 51	00 07	1
								00 08	00 24	
5411	HD 142926	15 52.8	42 51	"	Process	"		03 30	06 20	2

Thursday Feb 1-2, 1940 H-T

Cloudy with snow.

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.				REMARKS
		67 -37	2	4.87	B3	10-10	Set 1	Finder came down on tall ladder with enough force to dislodge eyepieces. Replaced it and everything seems O.K. -Hdd
						10-10	" 6	
						10-10	" 9	
						10-10	" 1	Can only operate dome from below
	W 2 hr		2			10-10	" 6	Hdd Set dome ε at 00.30 for 142926 Etc.
								Focus set at 140
	1 12 E	42 42	2	6.46	B∞	No Filters 7-7-7		

		HC	SC	DW	HT	ST
Jan. 31	12	+16.8	-18.2	+35.6	+34.4s	+0.4m
Feb 1	10	+18.0	-19.4	+48.1	+38.0	+0.3m

Date Wed Jan 31-Feb 1/40 Hol- Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
- 5412	δ Cas HD 5394	00 50.7	60 11	I - 25"	Process	0.10	-3.7	18 07	18 23	1
								18 23	18 29	
								18 30	18 32	
- 5413	o Cas mw& HD 4180	00 39.2	47 44	"	"	"	-3.8	18 39	20 09	2
- 5414	" " Cam HD 248879	06 40.5	67 41	"	Astra II	0.10	-3.5	20 25	20 55	3
								20 55	21 29	
								21 29	22 19	
- 5415	"	"	"	"	"	"	-3.4	22 20	22 54*	4

Pointer at 18.3

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
		2	1.0	Bop	mobiltemp 10+10	Set 1 Dome turning consistently,
					10 −10	" 6 Cos. focusing not working
					20	" 9 consistently,
W 2h 02	60 21					
W 3h 51	47 55	3	4.7	Bynep	10-10	Observed Zodiacal light - approx extension at 19.0
			4.87	B3	17 Ita 10, 10	Set 1 Clouds.
					10, 10	" 6 "
					10. 10	" 9 More "
W 33m	6° 35	3			10, 10	set 1 " * Call end 22.40
						Finally Shut down 23.15

		MC	SC	SW	MT	ST
Feb 1	10	+18.0	−19.4	+48.1	+38.0	+0.3
Feb 2	12	+28.5	−18.0	+134.5	−20.5	+0.0
						Reset

255

Date Friday Feb 2-3 1940, M-B Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
	4:30 p.m. Changed over to 12-inch.									
							A B			
5415 F_1				I-12	Astra II	.010	-21° -11°			4
5416	UV Leo HD. 92109	10 33	14 47	I-12	Astra II	.025	-9 -33	2 47	6 07	
5417	HD. 136831	15 17.7	12 56	"	"	.010	-15 -65	6 16	6 57	2
	Sat 2d, 3, 4 Thick from sunset on N of T									
	Monday Feb 5-6 Cloudy & fog & light drizzle. N-L									
	Tues " 6-7 Clear for a few minutes at 23:30 Otherwise Thick									4
	Friday Feb 9-10, 1940 12-B Cloudy all night.									

Pointer at 139

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	25 inch snout at			focus		23·7 tilt 23·15
	set 12 inch to			focus		26·15 tilt 20·25
	base outside				12/9	focus just about right.
Clouded up at sunset. Remained thick.						
						Put blower on telescope again
-04 W	[illegible]	1	[illegible]	G5	[illegible]	
05 W	[illegible]	1	[illegible]	A0	1-2-1	

Hel. L

		MC	SC	SW	MT	ST
Feb. 5	12	+24.9	-18.2	-18.0	+08.0 s	+0.0 m
		Added 0.5		Adv 2 m	Reset	
Feb. 6	12	+25.8	-17.0	-06.3	+07.2 s	+0.1 m
Feb. 7	12	+26.4	-17.6	+06.6	-00.4 s	+0.1 m
Feb. 9	12	+27.9	-17.3	+34.0	-08.6 s	-0.2 m

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Date Sunday Feb 11-12 1940 B-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
5718	H.D. 19789	03 05.9	12 40	12½	Eastman II	.010	A B -9.0 -0.7	18 21	19 35
	38947	04 24.1	07 25	"	"	"	9.0 0.0	19 41	—

Pointer 21.2

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
134 W	1-48	1-2	7.22	G-5	1-2-1	Feb. 10 10 MC +28.1 SC -17.5 SW +35.7 MT -10° 8 ST -0m 2
	2-1	1	7.42	G-5		Clouds
						had to open and close shutters by hand. Motor stopped after opening shutters a few times. Overload circuit breaker etc.; couldn't find trouble.
						Feb. 12 12 MC +29.0 SC -17.9 SW +133.3 MT -16° 7 ST -0m 3
						Feb. 13 14 MC +29.4 SC -18.2 SW +136.4 MT -17° 6 ST Reset -0m 3

25

Date Tuesday, February 13-14, 1940 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5419	HD 17591	02 44.3	+63 00	I-12	Acta II	Ent B 010	-4.4	18 21	19 31	1
5420	32784	05 00.5	+62 21	"	"	"	-4.4	19 35 ↑ 50 = 1 hr 19	20 35	2
	Wed Feb 14-15/40			H-L	First half fairly clear from 8.00 but					

Cloudy most of day, gradually clearing end of afternoon.

Temp at 17.9

p 260

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
1 57 W	+63 08	1	7.50	GO	1-2-1	KSA 9 Light clouds.
	+62 33	1	6,88	A5	1-2-1	KSA 10 Clouds - haze; [illegible]

Extremely high wind - some later. Cloud of 22" [illegible]

		MC	SC	SW	MT	ST
Feb. 14	10	+29.5	-17.8	-24.0	-15.0	-0.5
Feb 15	12	+30.0	-18.0	Adv 2m -10.0	-15.0	-0.4

261

Date Wed Feb 15-16, 1940 Hd-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	
5421	HD 9312	01 26.6	16 28	I-12	Astra II	0.10	-17.0	-7.5	18 20	19 30	3
5422	mwc 114 +0 37 115	5 21	-5 41	"	"	"		-7.5	19 45	21 01	4
5423	mwc 139 +0 44 137	6 17.7	05 09	"	"	"		-7.8	21 06	22 40	1
5424	mwc 158 +0 65079	7 51.9	3 14	"	"	"		-7.6	22 46	0 26	2
5425	HD 26571	9 09.9	11 58	"	"	"			0 30	1 30	3
5426	+16 3.6	10 29.8	4 10	"	"	"	-17.0	-7.4	1 35	1 55	4
5427	10 7 570	11 [illegible]	[illegible]	"	"	"			2 04	2 34	1
5428	10 [illegible]	12 [illegible]	[illegible]	"	"	"		-7.0	2 43	4 13	2
5429	13 3 61	14 57.3	16 26	"	"	"	-17.0		4 20	5 36	3
5430	14 [illegible] 34	15 22.1	10 12	"	"	"	-7.0		5 41	6 41	4

Pointer at 15.0

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	W 3h 22	16 40	1	7.59	G5	1-2-1	
	W 50m	-5 43	1	7.2	[illegible]	1-2-1	
	W 1h 42	15 07	1	7.7	B3e	1-2-1	
	W 1 55	3 05	1	7.7	B3ne	1-2-1	
	W 1 47	11 48	1-0	6.74	F0	1-2-1	Dome motion [illegible]
	W 0 46	8 56	1-0	5.70	A0	1-2-1	Tracking [illegible] R.A. clamp.
	E 0 17		1-0	6.00	A3	1-2-1	Plate holder mixed? (exposure angle incomplete)
	E 1 24	3 37	1	7.52	A2	1-2-1	OK
	E 0 01	16 16	1	7.55	G0	1-2-1	
	E 0 24	16 05	1	7.33	[illegible]	1-2-1	Thermostat [illegible] R.A. clamp for [illegible] not working

		MC	SC	MT	ST	SW
Feb. 16	12	+31.8	-17.5	-06s.8	-0m.3	+01s.5

Date Friday Feb 16-17, 1940, M-B Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	
5430 F1				I-12	Extra II	.020	-13.4	-4.4	17 [illegible]		4
5431	H.D. 32419	4 58.0	+41 09	I-12	Extra II	.020	-13.6	-4.9	18 51	21 51	1
5432	51418	6 52.2	42 26	—	—	.010	-13.9	-4.7	21 56	22 56	2
5433	50658	6 49.1	46 28	—	—	—			22 59	23 29	3
5434	92109	10 33.0	14 47	—	—	.025	-13.7	-4.6	23 36	0 50	4
5435	108714	12 54.3	17 53	—	—	.010	-14.0	-4.5	0 58	1 40	1
5436	120586	14 09.7	31 40	—	—	—	-14.1	-4.5	2 47	[illegible]	
5437	138406	15 26.8	62 05	—	—	—			5 [illegible] 05	6 [illegible]	
		Saturday Feb 17-18, 1940 H.									
	Changed to	25 mm			12 mm -		tilt		20.25;	tilt 26.17	
5437 F1											
F2											

Pointer at 17.34

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
from 26.12					12 9	from Cobble to start. Set from to 26.15.
16 W	41 11	2-1	8.9	A0	½-1-1½	
27 W	42 22	1	6.61	A0	1-2-1	temp control o.k.
03 W	46 20	1	5.75	B8	1-2-1	wind made image very jumpy.
42 W	14 33	1	9.9	G5	½-1-½	
9 W	17 33	1	7.52	A0	1-2-1	
07 W	31 27	1-2	7.29	A0	1-2-1	
0 W	41 [illegible]	2	6.79	A0	1-2-1	

		MC	SC	SW	MT	ST
Feb. 17	10	+33.0	-17.2	+15.3	-0.8	-0.2

11 5	23.15	[illegible]	23.5	1	4/4
Imp -5.7			23.9	6	
			23.7	9	
			23.5	0	4-4
			23.1	6	
			23.3	9	

1 [illegible]

2 ← NB. [illegible] 23.6

Date Saturday, February 17-18, 1940 H-T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5437F3	Arcturus East				A.A.II	010	-0.6	17 50		
- 5438	HD 13161	02 03.6	+34 31	I-25"	E. Process	Ind 010	+1.0	18 35	18 55	1
	"	"	"	"	"			18 56	19 11	
- 5439	28319	04 22.9	+15 39	"	"		+1.2	19 17	19 42	2
	"	"	"	"	"			19 43	20 05	
	"	"	"	"	"		+1.2	20 05	20 24	
- 5440	56986	07 14.2	+22 16	"	"			20 28	20 49	3
	"	"	"	"	"			20 49	21 09	
	"	"	"	"	"			21 09	21 25	
- 5441	78209	09 01.9	+52 00	"	"		+1.1	21 31	22 21	2
	"	"	"	"	"			22 21	22 46	
	"	"	"	"	"			22 47	23 02	
- 5442	79762	09 15	+47 14	"	"		+1.4	23 56	+2	
[illegible]	[illegible]	[illegible]	[illegible]	"	"		+1.2	4 17		

Hour Angle End	Declination	Seeing	Ptg. Mag.		no fulling		REMARKS
22.4 ⁰	on track the hour				4/4		23.7 about it; 23.6 not bad.
23.7 ⁰							
23.6 ⁰							
2 2 W	+34 42	1	3.22	A6	10-10	hitting 2	Image very unsteady. for B
2 3 W			"	"	10-10	" 8	
	+15 42		3.90	F0	10-10	" 1	B
			"	"	10-10	6	
1 28 W		2	"	"	10-10	10	
		2	3.79	F0	10-10	1	B
					10-10	5	
0 21 E					2	9	
1 13 E	+51 57	2	4.62	A3p	10-10	5	light haze 11th B
		3			10-10	9	↖ Haze (Evening Star)
		3			10-10	1	thick not dense. Good image at 57
2 21 W		3+2+1	5.70	A5	10-10		
			4.44	Ap	10-		

Date..... Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
	Trees	Hd	Changed		Te	I-12		Set	
5+12F	trees				Astra II	010			

Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
					MC SC. SW MT ST
					Feb 19 12 +35·4 −17·4 +42·3 −14ˢ·8 −0ᵐ·4
					20 12 +36·1 −17·4 (+56·7) −15ˢ·6 −0ᵐ·4
					−03·3 add 1ᵐ

Focus 26.17 20.25
Outside temp 10/10

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Date Sunday - Feb. 20-21, M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
					Focus of 12-inch			O. K.		
5443	H.D. 92278	10 34.2	47 22	I-1½	Astra II	.010	-71 -0.5	01 10	02 54	1
5444	" 99304	11 13.5	17 46	"	"	"	-71 -0.5	03 00	04 36	2
5445	" 136831	15 17.7	12 56	"	"	"	-7.1 -0.5	04 40	05 44	3
5446	" 141530	16 02.8	13 36	"	"	"	-9.1 -0.4	03 58	05 34	4

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
Wisked water out of a number of buckets of the centre piece filled it often but evaporated in NE wind too strong. Wind increased slightly in strength to 10.00pm Several lights between 11.30 and 12.0 pm Parts set at 21.1						
2 00 W	47 09	0	736	Ae	1-2-1	KSA 50
2 38 W	17 27	0	709	Ae	1-2-1	KSA 49
0 12 E	12 45	0-1	650	Ao	1-2-1	KSA 65
0 12 W	17 56	0-1	751	Te	1-2-1	KSA 64

		MC	SC	SW	MT	ST
Feb 21	12	+37.2	-16.8	+10.7	-15°.8	-0m.4

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Date Wed Feb 21-22, 1940 Hel-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5447	mwc 82 HD 264220	04 05.7	41 53	I-12	Cutra 4	015	-12.0 -3.0	18 43	20 13	1
5448	mwc 142 HD 45677	06 23.7	-13 00	"	"	"	+3.1 +0.5	20 22	21 22	2
5449	mwc 189 HD 265176	07 52.4	-1 20	"	"	"	-0.2	21 29	22 59	3
5450	HD 90602	10 22.6	45 43	"	"	010	-0.3	23 09	00 13	4
5451	" 92728	10 37.4	57 43	"	"	"	-8.8 -0.1	00 25	00 55	1
5452	" 107670	12 13.6	-00 14	"	"	"	-8.8 -0.1	01 03	01 35	2
5453	" 111604	12 45.4	38 04	"	"	"	-8.8 -0.1	01 39	02 09	3
5454	" 112846	12 57.5	-03 16	"	"	"	-8.8 -0.2	02 15	02 45	4
	" 116568	13 19.3	-04 39	"	"	"				1
5455	" 118611	13 11.0	41 23	"	"	"	-8.9 -0.2	03 00	03 33	1
5456	" 121607	13 30.4	01 32	"	"	"	-8.9 -0.2	03 33	04 01	2
5457	" 123167	14 [illegible]	01 16	"	"	"	-8.8 -0.1	04 05	04 37	3
5458	" 141378	15 [illegible]	-03 31	"	"	"	-8.7 0.0	04 41	05 05	4
5459	" 161[illegible]	16 33.4	04 25	"	"	"	-8.9 -0.2	05 12	05 40	1
5460	" 1603[illegible]	17 32.1	30 51	"	"	"	-8.7 0.0	05 45	[illegible]	2
		[illegible] day [illegible] 22-23, 1940		H-T						

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Tracing very confused 6.45 - 7.13 (Probably continuous)
- Last seen with certainty at 7.17 G.S.T. (G.S.T. 5h 02.5)
at which time it appeared to be on horizon.

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
W 1 Lag 4m	41 56	1	7.6	B3	1-2-1	Near end of tape Temp B = +3.5! Light down at spec. Obs.
W 41 m	-13 00	1	7.5	Be?	1-2-1	When temp fell to -0.2 reset at 21.4, but relay not working properly
W 50 m	-01 50	1	8.1	B5	1-2-1	Relay OK now
O 21 E	45 30	1	7.49	K0	2-1-1	
O 01 W	57 30	1	5.77	B9	1-2-1	BSC
C 04 E	-01 28	1	6.00	A3	1-2-1	"
C 52 E	37 49	1	5.92	A2	1-2-1	"
C 55 E	-01 29	1	5.87	A0	1-2-1	"
			6.10	Fe		"
O 31 W	41 09	1-2	5.82	A5	1-2-1	"
O 56 E	01 28	1-2	6.02	A3	1-2-1	"
C 06 E	34 07	1-2	5.88	A2	1-2-1	"
O 54 E	-02 40	1-2	5.69	A3	1-2-1	"
1 10 E	04 15	2	5.73	A0	1-2-1	"
1 32 E	34 47	2	5.82	A2	1-	"
Finish	Lag 8h 45-0		6.11			Confirmed that by [illegible] obtained

Pointer at 18.1

Might stand

Located at 10 divs. left!

Spool, roll, check, can't

Fri Feb 23-30 Hd-B. Thick haze & light snow at sunset. Then better, then worse. Thick at 20.00

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Date Saturday, Feb 24-25/1940, T-M Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
							A B			
5461	HD 102056	11 39.6	29 13	I-12	Cyc-II	.010	+12° -3°	2 11	4 03	3
5462	138406	15 26.8	62 05	—	—	—	+13° -4°	4 12	5 34	4
~~5463~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~							

Pointing & 13.14 Had to work last
control by level ment of time

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS

	MC	SC	SW	MT	ST
Feb. 22 10	+38.0	-16.7	+22.3	-14	-0.4
Feb 23 12	+39.5	-15.6	+38.1	-19.0	-0.4
Feb 24 12	+41.0	-14.4	+52.9	-26.1	-0.6

Cloudy with light snow first half of night. Cleared about midnight. Found dome frozen tight. Wasted a lot of time waiting ice from under the wheels on which dome turns. R.A. clamp not working well.

2	20 W	28	59	0	6.78	A 0	1-2-1
3	05 W	61	54	0-1	6.77	A 0	1-2-1

set motor will E but R.A. clamp refused to work. Started so much to trying to get it work & that time light & got another star.

Don't work as much in N part of time in spite of bright moonlight

Date Sunday Feb 25-26 B-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5463	HD 28447	04 24.1	27 55	I-12	Astro II	.010	-15.0 -5.2	18 39	20 39	1
5464	44071	06 14.7	29 25	"	"	"	-15.0 -5.4	20 45	22 21	1
5465	73576	08 34.1	32 19	"	"	"	-15.0 -5.4	22 29	23 19	1
5466	77823	09 11.8	27 51	"	"	"	-15.0 -5.4	23 58	00 48	
5467	101133	11 33.2	47 23	"	"	"	-14.4 -5.2	00 56	01 50	1

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
2 14 W.	27 59	0	7.42	G5	1-2-1	Shutter motor circuit bad. Had to use hand control OK, tube indicates
2 05 W	29 22	0-1	7.19	F0	1-2-1	Temp. control sticking excessively
0 39 W	32 07	0	6.78	F2	1-2-1	
0 26 W	27 37	0	6.80	F5	1-2-1	KSA 53
0 19 W	47 09	0-1	6.59	F8	1-2-1	KSA 31 light clouds, clouds thickening overall to the south. Closed at 2 a.m. thicker.

		MC	SC	SW	MT_s	ST
Feb. 26	10	+42	-13.5	+1 21.0	-25	$-0^m.6$

Date Monday Feb 26-27 1940 M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature A	Temperature B	Starting Time E.S.T.	Ending Time E.S.T.	
-5466	TU Mon	7 48.3	-2 47	I-12	Astra II	.025L	-15.5°	-6.0°	19 39	22 35	2
-5467	HD 92109	10 33.1	+14 47	—	—	.025L	-15.5°	-6.0°	22 42	01 30	3
		Sunday February 27-28 1940		M-L			Cloudy with light snow				4

Pointed at 16 in Cas to test tracking by hand

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
S SCW	-2 54	2	9.0	B8	½-1-½	[illegible] at 21.20
	14 35	3	9.7	G5	½-1-	Haze, light clouds, star gaze at 1.30 Wait for the stars to clear at 3.00 sky thick

		MC	SC	SW	MT	ST
Feb. 27	12	+45.2	-12.5	-10.6	-23.6	-0.5
Feb. 28	12	+44.9	-12.8	-10.2	-27.0	-0.7

Date Wed Feb 28-29, 1940 Ha-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
							A B			
5468	HD 77190	08 55	28 18	I-12	extra I	010	-10.3 -1.7	22 52	23 22	4
5469	" 85144	09 46	-03 46	"	"	"	-10.2 -2.0	23 28	23 54	1
5470	" 91636	10 [illegible]	00 10	"	"	"	-10.2 -2.0	23 58	01 10	2
		Thursday Feb 29 - Hand I				+1 -T				
				Cloudy.		Light snow sometimes but dry.				

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
W 37m	23 06	1	6.09	A5	2-2	1355 Haze and clouds, early evening
0 19 W	-03 58	1	5.70	A0	2-2	"
C 52 W	08 56	1	5.70	A0	2-2	" Haze, thicker, star gone at 00h50m-01h00m broken clouds 01h00m-01h10m, sky thick cloud at 3h00m still thick.

	MC	SC	SW	MT	ST
Feb 29	+45.0	-13.0	+0.6	-27s	-0.6m
Mar. 1	+47.2	-9.5	+15.3	-27.5s	-0.6m

Adjustments of dec. control, rewind, cut gate, clamp, etc. replaced. Function OK. Observe motor closely in case of future failure

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Date Friday, Jan 1-2, 1970 M-B Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
	Tuzon.			Aimed this star but too faint as just					
-5471	HD. 65607	7 54.4	-7 14	I-12	a.t.o II	.025L	-3°.1	19 58	22 24 3
-5472	92109	10 33.0	+14 47	—	—	—		22 31	1 31 4
	~~BD 11°3134~~	~~7 11.5~~	~~+11 33~~	—	—	.035L	11.5-2.5	1 59	

Set pointer to 19.18
Galvanometer control not working
controlled by hand

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
at mid eclipse						
0 42W	-7 22	2	84	A3	½-1-½	Track control working OK at end of ecl.
1 17W	+14 33	2	99	G5	½-1-½	
—	47 22		9	—		Clouds at 3:05 Cloud at 3:30

Observed bright meteor (about 0 mag.) at 2:22 A.M. Visible for 10 seconds, white orange color, 2 tail. Disappeared behind clouds in S.

		MC	SC	SW	MT	ST
Mar. 2	10	+48.1	-08.6	+26.9	-23.7	-0.m5

Date Sat Morn 2-3, 1940 H&L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature H B	Starting Time E.S.T.	Ending Time E.S.T.	
5473	HD 34250	05 10.9	28 49	I-12	Astra II	010	-11.0-2.2	18 54	19 44	2
5474	MWC 174 HD 57236	07 15.9	-8 15	"	"	015	-2.2	19 53	21 33	3
5475	HD 73971	08 36.1	47 16	"	"	010	-2.2	21 39	22 39	4
	HD 76292	Ref on this last image					Too gaining.			

Sunday Morn 3-4 L

Ice storm in afternoon, changing to mild rain continued to rain all night.

Monday Morn 4-5, 1940 H+L

cloudy with rain.

Thurs Mar 7-8 - Observed about 2 hrs ½ hr last clear interval.

Pointer at 19.7

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
W 55m	28 50	2	7.17	F0	1-2-1	Trouble again with dome Turning (voltage 113)
W 40m	-8 58	2	8.1	B5n	1-1-1	increasingly hazy.
W 25m	47 05	2	6.99	G5	1-2-1	" " only 2nd mag showing
			6.22			Closed 23:00

		MC	SC	SW	HT	ST
Mar. 4	12	+50.5	-06.6	+07.2	+09.2	+0m.1
" 5	12	+51.3	-03.7	-00.5	+08.0	+0m.1
" 6	12	+52.0	-04.0	+12.5	+06.4	+0s.9
" 7	12	+52.0	-02.3	+25.7	-31.0 dust	+0m.6
" 8	12	+33.7	-02.6	+40.1	-33.0	+0m.7

Date Friday, Mar 8-9, 1940, M-B Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
	Sky Not fit for NG									
5476 A	HD 92109	10 33	0 14 47	I-12	Astra II	.025L	A B -3.1	21 37		1
5476										
	Saturday Mar. 9-10, 1940 I-B									
	Changed to 25"									
5476 F				Foc 23.15		Focus	23.5		9	
	Temp -14.0			F/4 w filter			23.7		6	
				Check the focus			23.9		1	

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
							Cloudy all day. Started to clear at about 20:30. Strong wind at first which died down by Brilliant aurora in N. Force of 20:30. Points at 18.78 Force of 21:15.
		14 33	1-0	99	G5	½-1	After first setting down strong wind blew in other direction & fell by freezing in relay down stairs. Wind became very!! strong and gusty Considered advisable to close down at 22.15
							At 22:40 Johnston moved up on N half of sky. Had also clear entirely by 23 30 0 to mostly cloudy - closed up Completely cloudy by 2 00

		MC	SC	SW	MT	ST
Mar 9	10	+54·3	-02·3	+51·6	-32°6	+0m7

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Date Sunday, Mar 10-11, 1940 B-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
5476F,		Focus test		Outside Star						
5477	HD 13161	02 03.6	34 31	I-25	Panc	.010	-15.5-6.2	19 04	19 30	4
	"	"	"	"	"	"		19 30	19 46	
	"	"	"	"	"	"		19 46	19 58	
5478	HD 56986	07 17.2	22 10	"	"	"	-15.5-6.2	20 05	20 21	2
	"	"	"	"	"	"		20 21	20 35	
	"	"	"	"	"	"		20 35	[illegible]	
5479	HD 78209	09 01.7	52 00	"	"	"	-16.1-6.9	20 57	21 48	1
09 5	"	"	"	"	"	"		21 50	22 50	
	"	"	"	"	"	"		22 50	23 32	
5480	HD 97603	11 09	31 04	"	"	"	-15.5-6.0	23 38	[illegible]	4
								23 48	23 53	
								23 54	[illegible]	
5481	"	"	"	"	"	"	-15.1-6.2	00 10	00 19	2
								00 20	00 37	
								00 38	[illegible]	

Rubber strap wind.
Pointer at 15.8

Hour Angle End	Declination	Seeing	Ptg. Mag.		no filter	REMARKS
					4/4	ST set by SC corr. -5m2
		1	3.22	A6	10-10	1 Image jumpy
		2			10-10	5
1 48 W		2			10-10	9
	20 05	3-2	3.79	F0	10-10	1
		2			10-10	5 Seeing erratic
0 ° W		2-3			10-10	9
		2	4.02	A3p	10-10	1
		2-3			10-10	5
1 3 W		3			10-10	9
	20 30	2-3	2.66	A2	10-10	1
					20	5
1 ° E					20	9
	20 50	2	"	"	20	1
					20	5
0 19 W					20	9

Date Sunday March 10-11 Cont. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
- 5488	H.D. 119622	13 25.1	+64 10	I-25	Process	.010	-15.5-6.8	00 40	01 40	3
	"	"	"	"	"	"	-15.5-6.2	01 41	03 01	
- 5489	" 137909	15 25.9	+29 27	"	"	"	-15.5-6.2	02 08	03 32	1
	"	"	"	"	"	"		02 33	04 01	
	"	"	"	"	"	"		02 02	04 36	
- 5490	"	"	"	"	"	"	-15.5-6.2	04 37	04 57	4
	"	"	"	"	"	"	"	04 [illegible]	05 38	

Hour Angle End	Declination	Seeing	Ptg. Mag.				REMARKS
	03 57	2	499	A2p	7-7-7	1	Seeing variable all night averaging about 2.
C 47 W	"	2	"	"	7-7-7	6	
	59 17	2	4.00	Fop	10-10	1	
		2	—	"	10-10	5	
C 09 W		2	"	"	10-10	9	
		2	"	"	10-10	1	
1 " W		2	"	"	10-10	6	
							N.T. ST
							Mar. 11 16 -08.1s -0.2m
							Comparison with clocks

Date Friday, Jan. 11-12, 1940, M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
							A F			
-5484	1 Cas	2 20.8	166 57	I-45	Process	.010	-9.7	18 53	20 05	2
	"	"	"	"	"	"	-9.5	20 05	21 45	1
-5485	Boss 2443	9 01.9	+52 00	"	"	"	-9.6 -9.8	21 53	23 13	3
	"	"	"	"	"	"	-9.9	23 14	00 54	1
-5486	Boss 3500	13 29.1	+04 10	"	"	"	-9.9	01 03	03 23	4
-5487	3 Com. Nov.	15 23.7	+28 27	"	"	"	-9.9	03 25	04 45	1
	"	"	"	"	"	"	-9.9	04 29	05 45	

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
						Sinks + 12 68
						Reversed telescope for first star.
4 41W	67 10	2	4.7	A5p	7-7-7	No filters. Difficult to collimate in elevation, faint, high wind, motion sharp, intermittent.
6 22W	"	2-1	"	"	7-7-7	4½ 7½
1 10W	51 50	2	4.6	A3p	7-7-7	Reversed telescope.
2 57 W	"	2	"		7-7-7	High wind coming up at 23:20. Image very unsteady. Losing prism.
3 54 W	.03 56	2-1-0	4.99	A2p	7-7-7	
	.03 17	1-2	4.00	Fop	7-7-7	2½ Seeing better wind dying away.
1 [illegible] W	"	2	.	..	7-7-7	7½

		MC	SC	SW	HT	ST
Mar. 12	12	+59.3	-01.6	+128.5	-03.5	-0m.2

Date Sunday, March 12-13, 1940 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
= 5488	δ Gem	07 14.2	+22 10	I-25	Process	cut 010	-6.5	20 28	21 14	2
	"	"	"	"	"	"	-6.6	21 14	21 54	
	"	"	"	"	"	"	-6.6	21 54	22 40	
- 5489	53 Tau	12 12.5	+57 35	"	"	"	-6.6	22 50	23 03	3
	"	"	"	"	"	"	-6.5	23 05	23 43	
	"	"	"	"	"	"	-6.5	23 44	00 19	
= 5490	[illegible] 3115	13 29.1	+09 10	"	"	"	-6.5	00 49	02 19	
	"	"	"	"	"	"	-6.5	02 50	04 26	
= 5491	H.D. 116396	13 53.2	+40 51	"	Process	"		04 45	—	

Clouds much of afternoon; gradually clearing after dark.

Temp + 15.5

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
1 03 W	+22 05	0-1	3.79	Fo	9no filters 7-7-7	for B 1 Some light haze.
		1	"	"	7-7-7	" 5
		1-0	"	"	7-7-7	" 9 more haze.
	+57 20	2	3.44	A2	7-	for B " 1 Hazy.
			"	"	7-7-7	" 5
0 45 E			"	"	7-7-7	" 9
0 07 E	+55 46	2-1	4.96	Aep	7-7-7	" 2½ Hazy
1 41 W		2-1	"	"	7-7-7	" 7½ More Haze
—		2	5.00	B3p	1 2½ 7-	Sky falling in rapidly from the west; star general 05.00 dimmer thick.

					h m	
Mar. 13	12	+1	01.2	-01.1	-19.3	+0.600
					add 2m	
Mar. 14	10	+1	01	-00.1	-07.0	-020.01

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Date Thurs Mar 4-5/40 Hd. T Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
	Hyas						A B			
✓ 5491	HD 116542	13 21 2	+35 30	I-25	Pinatype	.010	10 6 45	0 05	1 05	3
~~5492~~	~~E Orionis~~	~~12~~								

Opened 23.15 Slewed, Started account of clouds in W.

Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
	55 17	0	4.00	4.16	10	St 1

	MC	SC	MT	ST	SW
Mar. 15	+1043	-0.1	-03°0	-0m1	+05.7

297

Date Sat Mar 16-17, 1990 B Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
5492	S U. Ma.	12 10	157 35	I-25	Baum	.010	-10 -01	23 06	23 36
		Sun. Mar. 17-18 B							
5493	S U. Ma.	12 10	157 35	I-25	E-33	.010	-7.5 +1.0	23 00	23 38
	"	"	"	"	"	"		23 38	00 02
5494	near HD 116542	13 21.2	+55 30		Baum	"		00 17	01 17
		Real Date 17-18 1990				M-L			
		A very nice night. Clear with light haze							
		after midnight. Seeing variable through							
		the night & good to excellent							

Point at 19

Hour Angle End	Declination	Seeing	Ptg. Mag.		pc filter	REMARKS
1 55 E		2-3	3.4	A2	7-7-7	Letter 1
						Points at 21.6
		2	3.4	A2	7-7	1
0 [illegible] E		~3	..	"	7-7	7
[illegible] E		2	[illegible]		7-7-7	for Hd

Mar. 18	12	+1m 07.5s	+0.1	+44.7	-04.0	-1.1m
Mar. 19	10	+1 07.0	+0.6	+54.6	-06.0	-0.1m
	20	12 +1 08.6	+0.5	+08.1 adv 1m	-08.8	-0.1m

Date..... Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.

nding Time
E.S.T.